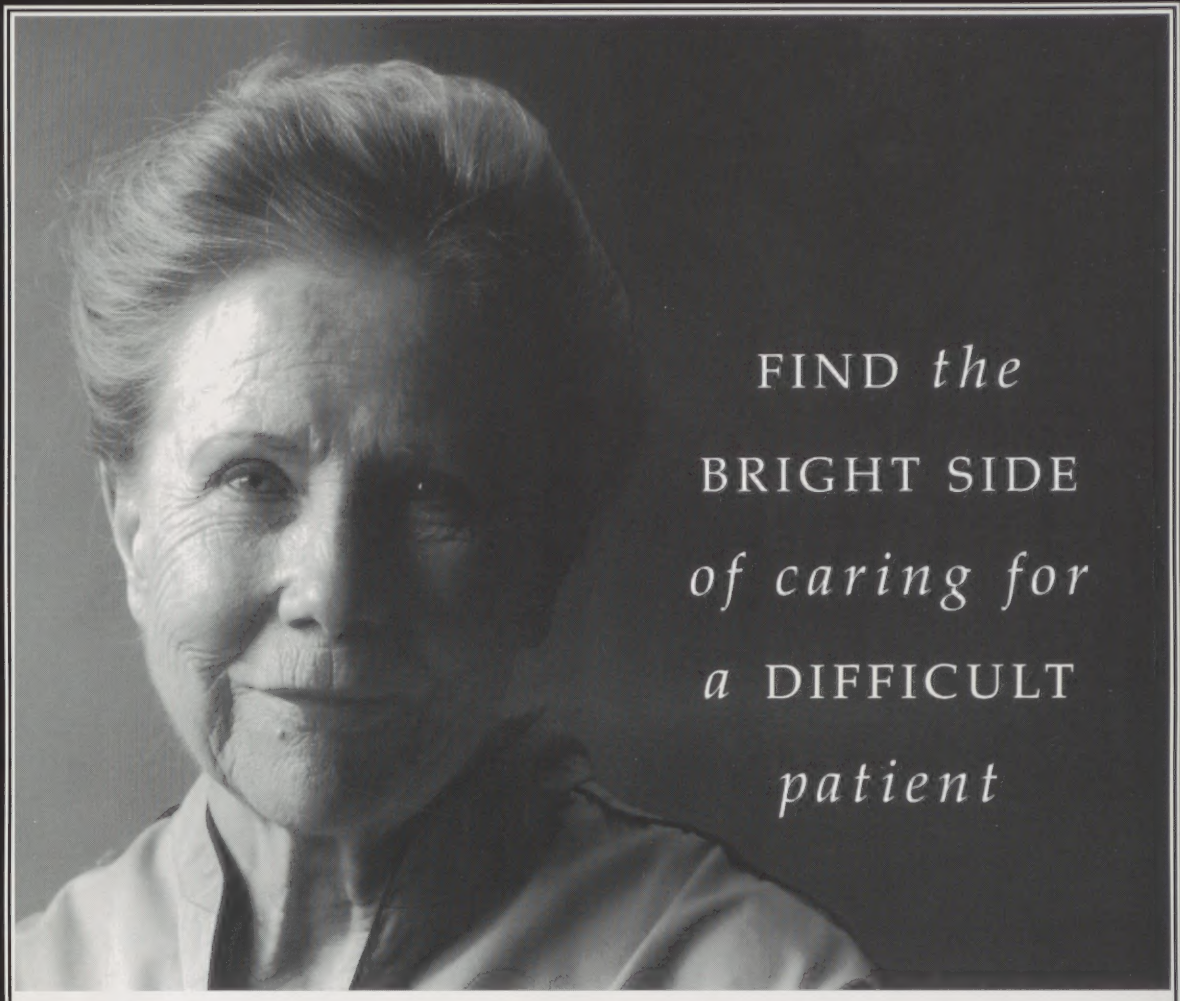
Official Publication of the State Medical Society of Wisconsin

WMJ

September 1998

Healthy Schools, Healthy Futures



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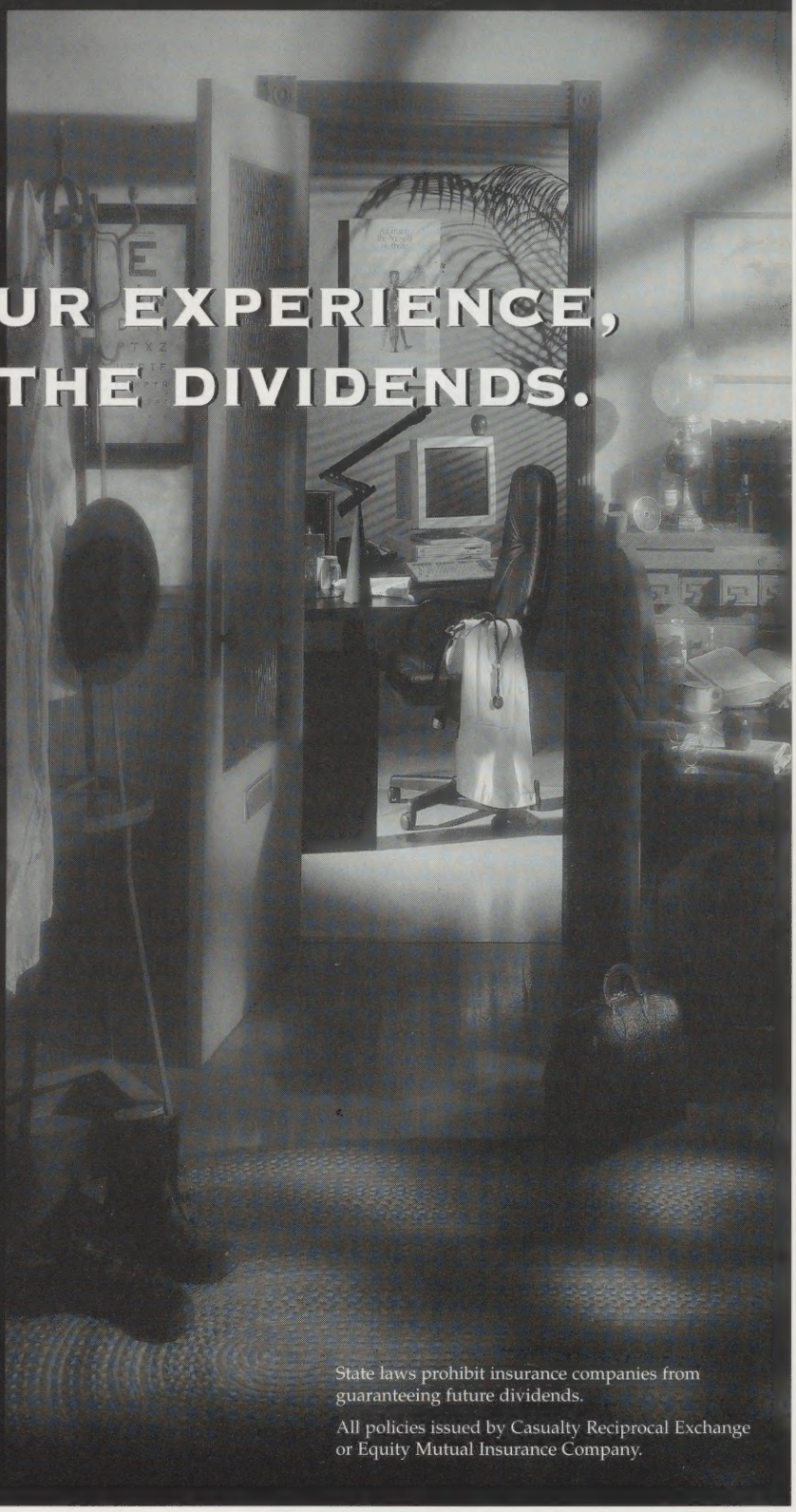

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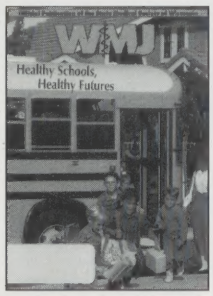

COVER THEME
SCHOOL HEALTH

As the school year begins, yellow buses become more visible, teachers start organizing their lesson plans and children are likely to be visiting their physicians for routine check-ups and immunizations. Indeed, physicians play an important role in the back-to-school routine. This issue of the WMJ *explores the opportunities and challenges facing physicians and their student patients. Together, we can ensure healthy schools for healthy futures.*

DEPARTMENTS

EDITORIALS

FOCUS ON SCHOOL HEALTH

September 1998

The *WMJ* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of the Journal. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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President's Page

Back to School, Back to Health

by John D. Riesch, MD

If you're a parent, the sound of school bells ringing may be music to your ears. As much as I enjoyed having my children home during the summers, I was always anxious for school to begin. Not because my children were driving me crazy (although that might have something to do with it), but because of what schools offered. The social interaction, the structured days, and the variety of activities were invaluable in my eyes. My children looked forward to school starting as well. School provided unique experiences for them, experiences not always offered at home.

For many physicians, the ringing of school bells means more hours in the office and an early end to summer. Suddenly conducting physicals, examining sports injuries, and administering immunizations become the order of the day. Oftentimes, it is the teacher who receives the attention and support upon the start of a new school year. However, we know that physicians play an integral role in this season too. Our leadership as health care advocates and our skills as healers become even more important and sought after.

And it's not enough that today's physicians know how to diagnose an illness or prescribe the correct medication. Physicians have become good listeners, counselors and second parents to many of their student patients. Our children are faced with pressures that were foreign to most of us when we attended school. Problems such as HIV, drug and alcohol abuse, school violence, and child neglect and abuse, are dominant in today's society. As physicians we have a responsibility to be aware of and understand these issues. We must be able to answer patient questions honestly and with expertise. That means educating ourselves by talking to school principals and teachers, discussing issues with parents and spending quality time with our child patients.

We must also recognize that students face entirely different social challenges. Students now spend time in front of computers, television and video games. What can we do to increase their physical activities? Fast food and unhealthy snacks are a part of every day life. What are you doing to emphasize the importance of nutritional diets? Fewer children are coming from homes with two parents and 2.2 children. Many have experienced divorce first-hand. What are we doing to support the emotional stress from such experiences? Families have become more mobile and less connected to the community. How can we provide stability to our patients?

One way for physicians to become more involved is through the community. When was the last time you visited a school to talk about your profession, to give a lesson on CPR, to promote exercise and nutrition? Ask a teacher if you can visit the classroom and I bet you will receive a resounding "Yes!"

The State Medical Society of Wisconsin is also promoting community endeavors through its sponsorship of programs such as Child Safe. In this issue of the *WMJ*, you will find the Child Safe Foundation Annual Report. Child Safe, established by the SMS in 1994, promotes childhood injury prevention, including the prevention of injuries and deaths due to firearms, through community initiatives and public education. I urge you to read the report and become involved in this highly-successful program.

Thanks to all of you who helped our children return back to school healthy this year. Many more thanks to those who help students maintain their health throughout the year. You all deserve an apple for a job well done!

EVP Report

John E. Patchett, JD

I had the honor of representing the State Medical Society of Wisconsin at a special ceremony May 26th, 1998 at the State Capitol. The SMS, among 26 organizations founded on or before statehood in 1848, accepted the Sesquicentennial Recognition Award from Governor Tommy G. Thompson.

"During Wisconsin's entire history as a state, they have provided services, products, jobs and investments to their communities," Governor Thompson said, before presenting each organization with a Sesquicentennial plaque and a letter of congratulations.

The SMS is the oldest association in Wisconsin, founded in 1841. The heart of the organization has always been betterment of the health of the people of Wisconsin. In the annual address of the President of the SMS in June of 1911, Byron M. Caples, MD stated,

> *I can but note with pleasure the rapid increase in the membership of our society and co-operation and goodfellowship of its members. As we become better acquainted, we realize more fully that the physicians of Wisconsin are able and progressive men and women, all working together for a united profession and for the betterment of public health conditions.*

John Patchett, JD, SMS EVP, receives Sesquicentennial Recognition Award from Governor Tommy G. Thompson. Bill McCoshen, Secretary of Commerce, was also present at the ceremony.

As the profession has grown, there has been more diversity within physician practice types, but one element that has been the enduring core of the SMS is physicians working together to advance the health of the people of Wisconsin.

That purpose remains our core and as our annual membership renewal process begins, we look forward to another year of striving to improve the health and health care of Wisconsin citizens. Maureen O'Brien, Vice President of Membership Relations, shares reasons for belonging to the SMS that you may not have thought about recently.

Continue Your Membership, Continue the Tradition of Providing Health Care in Wisconsin

by Maureen O'Brien, VP, Membership & Professional Relations

Why pay your membership dues for 1999? In the membership census, an overwhelming majority of you told us the SMS should focus on patient and physician advocacy, professionalism and community. In the coming weeks you can expect a report discussing what the SMS did for you during the first eight months of 1998. Examples of some of the efforts on your behalf are:

Advocacy

- Without SMS efforts on tort reform and representation on the Patients Compensation Fund rates would have gone up an additional 24%.
- Representation on important regulatory agencies and in the legislative process including the Worker's Compensation Board (in Wisconsin, we have some of the best reimbursement in the country), Medical Examining Board (working to resolve issues such as telemedicine and licensing issues), involvement with the process of the long-term care redesign, and on the Medicaid Advisory Board, plus another 30 or so agencies.
- Advocacy for patients in the legislature and through a number of projects to improve patient health and awareness. The SMS has worked toward increased awareness of Alzheimer's, elder

Continued on p. 43

Report to Wisconsin Physicians

Help Stop Unacceptable Sales Tactics by Drug Reps

by Representative Sheldon Wasserman, MD

As a practicing physician and a legislator, I do my utmost to address issues important to the medical community. One of the matters that has been brought to my attention is the conduct of pharmaceutical representatives (i.e., "drug reps") and their sales practices. Over the course of the last two years, physicians have discussed with me a very disturbing trend.

A cardiologist came to me with an interesting problem. He was approached by a drug rep who told him that he hadn't written enough prescriptions for his company's cardiac medication, but was instead bringing in profits for a competitor. Unless this changed, the drug rep said he could no longer buy lunch for the physician's staff or treat his family to dinner. I have heard of numerous situations similar to this, and I was recently a party to such an occurrence myself. These actions are absolutely unethical.

Examples of unacceptable sales tactics regarding prescribing records include, but are not limited to, citing a physician's own or others' prescribing records, and then attempting to convince him or her to change the nature of his or her prescriptions with regard to a particular patient or patients. Means of persuading doctors to change their prescribing practices may include offering free lunches, dinners, concert tickets or family functions as forms of conditional compensation for only those doctors who increase their prescriptions for a particular product.

The current code of conduct within the pharmaceutical industry concerning the use of prescription data, dictates that physicians' individual prescribing practices are confidential and privileged. However, in today's competitive marketplace, some drug reps may be tempted to pressure, cajole or extort physicians to write out prescriptions for their products, and to change their practice patterns. The knowledge of individual prescribing practices of physicians cannot be used in this manner.

I have met with members of the pharmaceutical industry and the State of Wisconsin Pharmacy Board as well as the Secretary of the Wisconsin Department of Regulation and Licensing concerning this trend. All of them have condemned it as unethical. The pharmaceutical industry in particular was very firm in stating that this behavior is grounds for termination of employment. At first I was skeptical, but when several senior vice-presidents of pharmaceutical corporations flew in from Washington, DC, to meet personally with me, it became clear that they take the matter very seriously.

If you have been subjected to such tactics by drug reps, please be advised that their actions go beyond the established code of conduct within the pharmaceutical industry. We as physicians are completely justified in reporting those who demonstrate unethical sales tactics. Please report offenders or direct any questions to a drug representative's company, and/or the Wisconsin Department of Regulation and Licensing's Deputy Director, Patricia McCormack, at: (608) 267-2435.

Sheldon Wasserman, MD, is serving his second term in the State Assembly. He currently serves on the following Assembly committees: Health, Income Tax Review and Insurance, Securities and Corporate Policy. Doctor Wasserman and his family reside in Milwaukee.

We Only Have One Client...

But, don't feel sorry for us. One client is all we need. We're SMS Insurance Services, the state's only Wisconsin-based, physician-owned insurance firm. And our only client is Wisconsin's medical community.

Like many of you, SMS Insurance Services is a specialist. We provide comprehensive insurance coverage to Wisconsin physicians, clinics, hospitals, related health care providers, their employees and families. And that's all.

Having only one client, we get to know that one client very well. Which is why SMS Insurance Services best understands the Wisconsin medical community's insurance needs. We are the leading provider of medical professional liability coverage in Wisconsin. And we offer the most comprehensive range of employee benefits, personal, and business insurance programs available. All tailored to the unique requirements of our only client.

If you want to do business with the insurance firm that knows you best, come to SMS Insurance Services. Remember, we have only one client, and that client is

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Who's In The News

Gary A. Becker, MD

Robert A. Coe, MD

Joseph E. Geenen, MD

William W. Greaves, MD

Family physician, **Mary Arenberg, MD**, with Plymouth Family Physicians, is the 1998 recipient of the Professional Business Women's "Woman of the Year" Award. She earned her medical degree from the University of Illinois Medical School and completed her residency at Waukesha Memorial Hospital. After residency training, she and her husband, **George Schroeder, MD**, spent a year in Africa before returning to the states and settling in Wisconsin.

Allen H. Babbitz, MD was named President of the Milwaukee Gynecologic Society. He is a partner in Babbitz, Burstein & Nash an OB/GYN practice in Seton Tower, St. Mary's Hospital, Milwaukee. He is a clinical associate professor of OB-GYN at the University of Wisconsin Medical School and a clinical assistant professor at the Medical College of Wisconsin.

Philip Bain, MD, recently presented a lecture on "Pharmoeconomic Issues in Migraine Therapy" to a group of primary care physicians and other medical professionals in San Diego, CA. He practices at Medical Specialists of Hartland, which is affiliated with Wilkinson Medical Clinic and is a clinical assistant professor in the department of general internal medicine at the Medical College of Wisconsin. Doctor Bain has a strong clinical interest in the treatment of headaches, especially in migraines.

Gary A. Becker, MD, retired chief executive officer of the Badger-Hawkeye Region's American Red Cross Blood Services, was honored with the Charles R. Drew Award. He oversaw the consolidation of three blood operations and the opening of two major blood centers in Green Bay and Madison, established a regional bone marrow donor program and founded a surgical bone program.

K. Eugene Bostian, MD, a pediatrician at Riverview/Dean Medical Clinics and the medical assistant program adviser for Blackhawk Technical College, received a special Outstanding Service Award at the college's recent annual Medical Assisting Pinning Ceremony. He has devoted many hours of time to ensure that students were well prepared for medical assisting jobs by providing insight and educational presentations to the students.

Community Memorial Hospital, Menomonee Falls has added three new doctors to its staff. They are: **Paul Bostrom, MD**, dermatology, Falls Medical Group, Menomonee Falls; **Mark Lawton, MD**, radiology, Menomonee Falls Radiology Ltd., Brookfield; and **Kaizad Machhi, MD**, general, thoracic and vascular surgery, West Bend Clinic, West Bend.

Robert Braco, MD, and **James Long, MD,** of Beloit Memorial Hospital were recertified as Medical Review Officers. Doctor Braco, a specialist in occupational medicine, is also medical director and on-site physician for the hospital's Occupational Health and Sports Medicine Center. Doctor Long is a family practice physician with Family Health Associates.

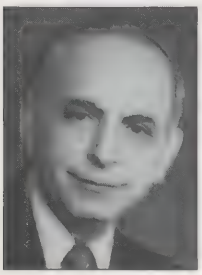
General/vascular surgeon, **Robert T. Brebrick, MD**, joined the medical staff of Wausau Medical Center. Doctor Brebrick earned his medical degree from the Medical College of Wisconsin, Milwaukee. He served a residency in internal medicine at the University of Iowa Hospital & Clinics, Iowa City and in general surgery at Iowa Methodist Medical Center, Des Moines.

A. John Capelli, MD, a physician with Family Medical Center – South, Kenosha, was presented the "Service Beyond Self" award by the Kenosha Rotary Club. He has donated his time and energy to the United Way, and running the Family Medical Center which provides free services to underprivileged Hispanic mothers.

Harry Caskey, MD, and **DeLore Williams, MD**, were recently honored on the 50th anniversary of their medical school graduation from the Medical College of Wisconsin, Class of 1948. Doctor Caskey practiced at the LaSalle Clinic in Clintonville and retired in July. Doctor Williams practiced in West Allis and is also retired.

Orthopedic surgeon, **Robert A. Coe, MD**, expanded and enhanced orthopedic services in the Dodge County and surrounding area on June 1 with the opening of Family & Sports Orthopaedic Center. He continues to work together with Beaver Dam Community Hospital's Joint Replacement Center, the

Who's In The News



Manucher J. Javid, MD

Nazi Khan, MD

Jeanette Miller, MD

John L. Olson, MD

Sports Medicine Center of Beaver Dam, and outpatient and surgical care to patients at Columbus Community Hospital and Waupun Memorial Hospital. He is board certified in orthopedic surgery and a Fellow of the American Academy of Orthopaedic Surgeons.

Family physicians, **Thomas Cunningham, MD**, with Chequamegon Clinic in Ashland; **Steven R. Sirus, MD**, of Franklin; **Diane Staudinger, MD**, of Two Rivers Clinic; and **Mark Villwock, MD**, of Prevea Clinic's Kewaunee site, all completed continuing medical education requirements to retain Active Membership in the American Academy of Family Physicians. The AAFP is one of the largest medical specialty organizations in the country with more than 80,000 members.

Adam Dachman, MD, who is an accomplished pianist and composer recently appeared with Garrison Keillor on his nationally-syndicated radio show, "A Prairie Home Companion." Doctor Dachman is a Dodgeville-based surgeon who also practices at Memorial Hospital of Lafayette County.

Pediatrician, **Rudolph Duquesnoy, MD**, joined Glendale Clinic. He earned his medical degree in Amsterdam, completed his residency at Children's Hospital of Wisconsin and has practiced in the Milwaukee area for more than 20 years.

Lynn D. Eggman, MD, pediatrician with Rhinelander Medical Center, was awarded the "Max Fox Preceptorship Award" by the University of Wisconsin Medical School and the Wisconsin Medical Alumni Association for his dedicated service as a medical student preceptor. He has served as a preceptor or associate preceptor for more than 30 years.

John J. Frey, III, MD, professor and chair of the UW Medical School Department of Family Medicine, was installed as the 26th president of the Society of Teachers of Family Medicine (STFM). STFM has more than 4,800 members, including family physicians, behavioral scientists, social workers and other faculty members in family medicine departments and residency programs nationwide.

Memorial Hospital of Burlington, Aurora Health Care, has become the first hospital in the Midwest to perform a uterine artery embolization, an angiographic procedure which was previously only available in Los Angeles, CA and Bala Cynwyd, PA. The procedure was performed by **George Fueredi, MD**, an interventional radiologist at the hospital.

Joseph E. Geenen, MD, is the 1998 recipient of an Alumni Merit Award from Marquette University. He was recognized for his achievements throughout his career as well as his efforts to help train gastroenterologists in underdeveloped countries. Doctor Geenen is a gastroenterologist with Gastroenterology Consultants, Ltd, Milwaukee.

William W. Greaves, MD, director of the Master of Public Health degree programs, department of preventive medicine, at the Medical College of Wisconsin, is the new president of the American College of Occupational and Environmental Medicine. The ACOEM is an international medical society of 7,000 occupational medicine physicians.

Pediatric gastroenterologist, **Janice B. Heikenen, MD**, joined the Marshfield Clinic. She holds a master's degree in nursing from the University of Minnesota in Minneapolis and earned her medical degree from the University of Wisconsin Medical School, Madison. Doctor Heikenen served a residency in pediatrics at the University of Wisconsin Affiliated Program, Marshfield and completed a fellowship in pediatric gastroenterology at the Medical College of Wisconsin, Milwaukee.

Orthopedic surgeon, **Greg Hrasky, MD**, spoke to third grade students at Abraham Lincoln School in Monroe on the importance of the skeleton. Doctor Hrasky is associated with the Monroe Clinic.

Manucher J. Javid, MD, Professor Emeritus and former Chair, Department of Neurological Surgery, University of Wisconsin Medical School retired on July 1, 1998. He was a member of the Medical School faculty since January 1, 1953. He earned his medical degree from the University of Illinois College of Medicine, and served his internship at Augustana Hospital, Chicago. Doctor Javid completed his residency at Massachusetts General Hospital, Boston.

Who's In The News

Carol Prchal, MD

Patricia Raftery, DO

Ronald Schulgit, MD

Camille Paquette-Schulgit, MD

Nazi Khan, MD, joined the UW Health-Physicians Plus internal medicine department, practicing at the group's clinic in Columbus. She earned her medical degree from Dow Medical College in Karachi, Pakistan, and completed her residency at the University of Wisconsin Medical School.

Shafaat Khan, MD, joined the staff of the Muzaffar Mirza Clinic, Friendship and is affiliated with Adams County Memorial Hospital. He received his medical degree from Dow Medical College in Karachi, Pakistan. Doctor Khan completed a residency in pediatrics at Harlem Hospital in New York and a fellowship in neonatology at St. Peter's Hospital in New Jersey.

The Medical College of Wisconsin honored Brookfield resident, **Mahendr Kochar, MD**, associate dean for graduate medical education, professor of medicine and a member of the Cardiovascular Research Center, with a Distinguished Service Award at the college's commencement exercises in May.

Gastroenterologist, **Bryan Magenheim, MD**, joined UW Health-Physicians Plus Columbus and will provide clinical services related to diseases of the digestive tract, liver and pancreas. Doctor Magenheim received his medical degree from American University of the Caribbean School of Medicine in Plymouth, Montserrat. He completed a residency in internal medicine and a gastroenterology fellowship at the UW Hospital and Clinics.

Walther Meyer, MD, is retiring after 51 years of practicing medicine at Memorial Hospital and the Medford Clinic. He earned his medical degree from the University of Chicago Medical School and interned at University Hospital in Madison before settling in Medford. Since starting his practice in 1947, he has delivered more than 6,700 babies and has touched the lives of almost everyone in the Medford area. Doctor Meyer was honored by the Medford Area Chamber of Commerce for his "lifetime achievement" in 1989 and was awarded the SMS Physician-Citizen of the Year Award in 1993.

Family physician, **Jeanette Miller, MD**, joined the Augusta Family Medicine Clinic. She received her medical degree from the Medical College of Wisconsin, Milwaukee and completed her residency in family medicine at the University of Wisconsin sponsored Eau Claire Family Practice Residency Program. Before coming to Augusta she completed a six-month mission trip to Nepal.

H. Craig Mork, MD, an internist, joined Family Health Medical & Dental Center, Wautoma, an affiliate of Ministry Health Care. He earned his medical degree from St. Louis University and is certified in internal medicine and geriatrics.

Maureen Murphy-Greenwood, MD, was among a team of 13 area medical personnel who made a trip to Haiti in June. Their main purpose was to educate five Haitians in health care ranging from techniques in blood pressure, temperature, common infection treatments and dealing with emergencies. She was also elected president of the Baraboo branch of the American Association of University Women in June.

Vascular surgeon, **Anselmo A. Nunez, MD**, was awarded the Gail H. Williams Teaching Recognition Award at the recent Residents Recognition Evening held at the Marshfield Clinic. Doctor Nunez is director of the General Surgery Residency Program at Marshfield Clinic and St. Joseph's Hospital.

John L. Olson, MD received the University of Wisconsin-Madison Medical Alumni Association Teaching Award for the second time. He earned his medical degree from the UW-Madison and served his internal medicine residency at the Naval Regional Medical Center, Oakland, CA. Doctor Olson is serving as the Marshfield Clinic's Program Director for the Internal Medicine and Transitional Year Residency Programs. He teaches internal medicine residents in supervisory roles in inpatient and outpatient settings and also instructs third and fourth year medical students.

Albert Pecherek, MD, of Racine has joined St. Catherine's Hospital Family Practice Associates of Kenosha as a primary care physician. He earned his medical degree from The Medical Academy of

Who's In The News

James Stiehl, MD

Joan Sumkin, MD

Kenneth M. Viste, Jr., MD

Andrea Winthrop, MD

Warsaw, Poland, and completed his family practice resident at the University of Illinois School of Medicine.

Thomas Perry, MD, a neurologist with the Monroe Clinic, received his board certification from the American Board of Sleep Medicine. He received his medical degree from the University of Wisconsin Medical School.

Carol Prchal, MD, an orthopedic surgeon with the Burlington Clinic, Aurora Health Care, participated in a marathon on June 21 in San Diego, CA, to raise funds for the Leukemia Society of America.

Andrew T. Przlomski, MD, family physician, joined the medical staff of Marshfield Clinic-Lakeland Center. He earned his medical degree from Marquette University School of Medicine, Milwaukee. Doctor Przlomski had training in obstetrics/gynecology at Harbor General Hospital, University of California-Los Angeles.

Patricia Raftery, DO, a family physician with Franciscan Skemp Healthcare in Sparta, was awarded the 1998 Outstanding Woman of the Year Award by the Sparta Women's Association.

Internal medicine specialist, **Rebecca Rucker, MD**, joined Luther Hospital and Midelfort Clinic. She received her medical degree from Wayne State University School of Medicine of Detroit. She completed her internship in psychiatry at Sinai Hospital, Detroit, and a residency in internal medicine at William Beaumont Hospital, Royal Oak, MI.

Marshfield Center oncologist **Daniel A. Rushing, MD**, and Regional Cancer Center oncologist **David J. Schifeling, MD**, passed the exam administered by the American Board of Hospice and Palliative Medicine. **Doctor Rushing** earned his medical degree from the University of Illinois School of Medicine, Chicago. He completed his residency at Rush-Presbyterian-St. Luke's Hospital, Chicago, and a fellowship in medical oncology at the University of Minnesota Hospitals. **Doctor Schifeling** received his medical degree from the University of Chicago Pritzker School of Medicine, and completed a residency in internal medicine at the Medical University of South Carolina in Charleston, SC.

Ronald Schulgit, MD and **Camille Paquette-Schulgit, MD**, received the Family Physician Community Service Award from the Wisconsin Academy of Family Physicians. The award recognizes those members who have provided uncompensated civic, cultural, economic, charitable and health care services to their local or state communities for many years. They helped to establish the Family Practice Center, cared for those who could not afford health care and also volunteered at the local high schools.

Andrew Seter, MD, was named medical director of employee health services throughout Covenant Healthcare System, Inc. He is board certified in occupational medicine, internal medicine, aero-space medicine and is a certified medical review officer.

General surgeon, **Jerry Smith, DO**, joined the staff of Rhinelander Regional Medical Group. He earned his Doctor of Osteopathy degree from Oklahoma State University, Tulsa and completed his surgical residency and internship at Tulsa Regional Medical Center, Tulsa, OK and Fort Worth Osteopathic Medical Center, Fort Worth, TX.

James Stiehl, MD, was elected to membership of the Knee Society, an orthopedic subspeciality group that recognizes members for outstanding research, clinical practice, and contributions in the field of knee surgery. He has published 20 peer-reviewed articles that relate specifically to this area and is recognized internationally for his work in the field of biomechanics. He is the first Wisconsin orthopedic surgeon to be elected to membership in this society. Doctor Stiehl is associated with Columbia Hospital, Milwaukee.

Family physician, **Larry C. Studt, MD**, joined the Marshfield Clinic-Eau Claire Center. He received his medical degree from the University of Iowa College of Medicine, Iowa City, IA. Doctor Studt served a residency in family practice at Mercy Hospital in Janesville.

Joan Sumkin, MD, internal medicine physician with the Aurora Health Center, Fond du Lac, received physician certification as a

Continued on p. 12

Welcome New Members

The individuals listed below were recently elected to SMS membership by their County Medical Societies. We are pleased to welcome them to the SMS.

Clark
Mariette Lee Yo, MD

Dane
Jill M. Cardwell, MD
Alison Craig (S)
Roma Yogesh Gianchandani, MD
Jean Campbell Haughwout, MD
Mark W. Lay, MD
Brian W. Mandeville, Jr., MD
Melissa Marquardt (S)
Sally Geiser McKinnon, MD
Amy C. Pivovar (S)
Gerald G. Ryan, MD
Ted J. Shinners (S)
Franklin J. Struwe, Jr., MD
Yolanda Whyte (S)

Fond du Lac
Carl Lift, MD
Ann P. Stein, MD

Grant
Arthur G. Cooperman, MD
Aditya Sukhwal, MD

Manitowoc
Mansoor Shariff, MD

Marathon
Robert T. Brebrick, MD

Marinette
Terry L. Bucan, DO
J. Kelly McGuire, MD

Milwaukee
Pamela J. Butler, MD
Philippe Angelo Capraro, MD
Chi Pei Chang, MD
David Bonka Chua, MD
Jimmy R. Clark, MD
Shilipi Davar, MD
Ralph A. Franciosi, MD
Mary E. Goolsby, MD
Kristen Iwanaga (S)
Rakesh Jagetia, MD
Gajendra K. Khatri, MD
Thomas G. Malloy, MD
Tanya K. Mattern, MD
John L. Merritt, MD
Soleyman Mirakhor, MD
Matthew J. Riese (S)
Steve Sadicario (S)
Jyoti Saluja, MD
Virginia Savin, MD
Christopher Schmelzer (S)
Nadeem Ahson Siddiqui, MD
Amy J. Stolarski, MD
Craig V. Towers, MD
Cresta Wedel (S)
Mark B. Wright, MD

Oneida-Vilas
Brian D. Nelson, MD
Jerry A. Smith, DO

Racine
Andrew N. Risner, MD

Rock
Cheryl Scott Peterson, MD

Sauk
John L. Lutz, DO
Zbigniew Trojanowski, MD

Waukesha
Steve C. Aller, MD
Jacqueline P. Jahnke, MD
Mark T. Lawton, MD
Melissa C. Weddle, MD

(S) designates medical student membership

Who's in the News — Continued from p. 11

clinical densitometrist after participating in a comprehensive educational program and passing an examination administered by the International Society for Clinical Densitometry.

Sridhar V. Vasudevan, MD, medical director of Elmbrook Memorial Hospital's Pain Rehabilitation Center in Brookfield, was awarded the "Philipp M. Lippe, MD Award" for contribution in the advancement in the field of pain management. The award was presented by the American Society of Pain Medicine.

Kenneth M. Viste, Jr., MD, of Oshkosh, will serve another four-year term on the Practicing Physicians Advisory Council. Donna Shalala, U.S. Secretary of Health and Human Services, re-appointed Viste to the 15-member council, where he will continue to serve as chairman. The council advises the Health Care Financing Administration on coding Medicare services, fraud and abuse investigations and any other health care issues that go before the federal office.

Andrea Winthrop, MD, was appointed assistant professor of surgery at the Medical College of Wisconsin. She is also medical director of the Pediatric Trauma Program and Injury Prevention Program at Children's Hospital of Wisconsin. She earned her medical degree from Queens University in Kingston, Ontario and won the Edgar Forrester Scholarship for highest standing academic excellence, the Hannah Washburn Polson Prize for proficiency in the final year in medicine, surgery and obstetrics, and the Dean Fowler Prize for the highest standing in the final year. Doctor Winthrop completed a general surgery residency at the University of Toronto and undergraduate honors science studies at Queens University.

AMA Awards

The SMS member physicians listed below recently earned the AMA's Physician Recognition Award. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations.

Karen L. Babel, MD
Christine M. Berg, MD
Richard J. Boxer, MD
Scott L. Boyens, MD
Cristian Bratu, MD
Bradley M. Burton, MD
Danielle R. Busse, DO
Navtej Singh Buttar, MD
Timothy N. Christiansen, MD
Harold L. Cohen, MD
William L. Conklin, MD
Elizabeth M. Davies, MD
Colin J. Drury, MD
Edmund C. Dy, MD
Richard Lyall Ellis, MD
Mitchell R. Erickson, MD
Laurence T. Giles, MD
Kathy A. Goble, MD
Steven A. Goedderz, MD
Thomas A. Graul, MD
Jody R. Gross, MD
Thorbjorn Gudjonsson, MD
Daniel W. Guehlstorf, MD
Stephen D. Hughes, MD
Linhtrang T. Huynh, MD
Michael A. Johnson, MD
Joseph P. Kim, MD
Kevin G. Klein, MD
Steven W. Klemish, MD
Jeffrey W. Knuppel, MD
Patrick N. Koenig, MD
Sridevi Koritala, MD
David T. Kunstman, MD
Robert R. Liedtke, MD
Robert R. Lisek, MD
Thomas D. Loomis, MD
Barbara D. Loris, MD
Laura E. Marusinec, MD
Michael I. Munford, MD
Willard H. Nettles, Jr., MD
Edward A. Norman, MD
Vasudev M. Patel, MD
Laura L. Polakowski, MD
Andrew T. Przlomski, MD
Robin M. Reichert, MD
Nirmala J. Rozario, MD
Maria E. Sandgren Birkelo, MD
Lilly H. Schaffer, MD
Patrick D. Snow, MD
Alok Kumar Srivastava, MD
Rohit Srivastava, MD
Mark R. Staszkiewicz, MD
Michael A. Stutz, MD
Linda M. Ward, MD
Chris M. Weinlander, MD
David E. Westgard, MD
Jeffery White, MD
Melinda J. Woofter, MD

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In Remembrance

Burdick, H. Laurence, MD, 83, a long-time Milton physician, passed away on May 24, 1998 in Little Genesee, NY. He earned his medical degree from the University of Wisconsin Medical School. He completed his residency at Tuscon Medical Center, Tuscon, AZ and served his internship at Ohio Valley General Hospital, Wheeling, WV. Doctor Burdick served in the U.S. Army from 1944 to 1946, the U.S. Air Force from 1954 to 1956 and practiced in Milton for more than 32 years, retiring in 1979.

Doctor Burdick received an honorary degree of Doctor of Humane Letters from Milton College in 1977. He was past president of Rock County Medical Society and the staffs of Mercy Hospital-Janesville and Edgerton Community Hospital; and secretary of the Board of Trustees at Milton College for more than 25 years. He was honored with the "Pillar of Milton" award by Milton College Alumni in 1971 and was the Kiwannis Club's "Citizen of the Year. Doctor Burdick was a member of the 1993 SMS 50 Year Club and an SMS life member.

Doctor Burdick is survived by his wife, Virginia; three children, Dr. Norman (Faith), of Galesburg, IL; Rev. Kenneth (Ruth), of Auburn, WA; Linda (Gordon) Lawton, of Little Genesee, NY; and seven grandchildren.

Christenson, Charles W. 'C.W.', MD, 80, passed away on May 19, 1998 in Milwaukee. He earned his medical education at the University of Wisconsin Medical School, Madison. His career as an orthopedic surgeon in Racine spanned some 40 years. During that time, he served as President of the Racine County Medical Society, and Chief of Staff at St. Lukes and St. Mary's Hospitals. He was a member of the American Board of Orthopaedic Surgeons; a diplomate in the American Academy of Orthopaedic Surgeons; a member of the American College of Surgeons; and past president of the Milwaukee Orthopaedic Society and the Wisconsin Orthopaedic Society. Doctor Christenson was a member of the 1993 SMS 50 Year Club.

Doctor Christenson was preceded in death by his wife, Shirley and daughter, Cynthia. He is survived by his brother, James, of Wauwatosa; three sons, David (Jane), of Daggett, MI; Timothy, of Door County; Bruce (Dianne), of Taupo, New Zealand; and six grandchildren.

Gutheil, Douglas A., MD, 82, of De Pere, passed away on May 7, 1998. He earned his medical degree from the Medical School at Marquette University as a member of the first graduating class. He served his internship at Milwaukee County General Hospital and residency at Muirdale Sanatorium, Milwaukee. Doctor Gutheil served in the U.S. Air Force as a flight surgeon during World War II.

Doctor Gutheil developed thoracoplasty, a surgical procedure for treating a diseased lung by collapsing it to permit it to heal. This procedure earned him worldwide recognition. He was employed as a physician at Muirdale Sanatorium; was medical director at Maple Crest Sanatorium, Manitowoc; a physician at Hickory Grove Sanitorium, De Pere, until its closure; and an emergency physician at Oconto Falls Memorial Hospital until his retirement. He was a member of the 1991 SMS 50 Year Club and life member of SMS.

Doctor Gutheil is survived by two daughters, Susan (Thomas) Schroeder, of Buffalo, NY and Claire Schey, of Columbia, MO; and three grandchildren.

Hoffmann, William C. Phil, MD, 73, of Hartford, died on June 11, 1998. He earned his medical degree from Marquette Medical School, completed his internship at Milwaukee County General Hospital, and practiced in Hartford from 1948 until his retirement in 1984. He served in the U.S. Navy from 1954-56. Doctor Hoffmann was a member of the Kettle Moraine Lions Club, Hartford VFW, Hartford American Legion, Hartford Memorial Hospital Foundation Emeritus member, and co-chair of the Hartford Centers Campaign. He was a member of the SMS 1997 50 Year Club.

Doctor Hoffmann is survived by his wife, Jane; eight children: Julie (James) Eckl, of Bloomfield Hills, MI; Eric (Sandra), of Slinger; Alex (Randy), of Milwaukee; Geoffrey (Marta), of Oak Creek; Kurt (Linda), of Deerfield, IL; Stacey (Thomas) Markwardt, of Ohiopyle, PA; Jeff (Leea) Schneider, of Colorado Springs, CO; Mark (Nikki) Schneider, of Oak Park, IL; and 17 grandchildren.

Imp, John F., MD, 87, passed away on April 20 at his Hubertus home. He earned his medical degree at Marquette University Medical School and completed his internship at St. Joseph's Hospital, Milwaukee and residency at Mendota State Hospital.

Doctor Imp was a captain in the U.S. Army during World War II, a member of the 288th medical detachment stationed in France. He was decorated by both the U.S. and French governments. Upon his honorable discharge in November, 1945, he continued to practice medicine until 1962 when he enrolled in the psychiatry program at the former Milwaukee County General Hospital, now the Medical College of Wisconsin. He retired from his psychiatric practice in 1989.

Doctor Imp was a member of the 1988 SMS Fifty Year Club and was granted SMS Life Membership in 1990.

Doctor Imp is survived by his wife, Irene; five children: Nancy (Ron) Rewald, of Los Angeles, CA; Agnes (Ron) Weix, of Richfield; Marian (Dale) Hartner, of Milwaukee; John (Donna), of Rochester, MN; and Dr. James (Gail), of Richfield; 18 grandchildren; and eight great-grandchildren.

Koch, John C., MD, 73 of Waupaca, passed away on May 29, 1998. Doctor Koch served in the Army 94th Infantry Division in France and Germany, 1943-1946. He earned his medical degree from the University of Wisconsin Medical School and completed his internship at the Medical College of Virginia, Richmond. Following completion of his internship in 1956, he returned to practice medicine with his father. From 1962-64 he took anesthesia training at the University of Wisconsin and began the practice of anesthesia at Berlin Memorial Hospital in 1965 until his retirement in 1990.

Some of Doctor Koch's memberships included the American Society of Anesthesiologists, Wisconsin Society of Anesthesiologists, Berlin Masonic Lodge #38 F. and A.M. O'Connor-Chiers Post American Legion, Wells-Krause VFW, and the Pearl Street Athletic Association.

Doctor Koch is survived by his wife, Jeanette; eight children: James (Luann); David (Mary); John (Suzanne); Kristin (Timothy) Seaman; Thomas (Marianne); Timothy (Joan); Gregory and Gretchen; ten grandchildren; and two step-grandchildren.

Koll-Frazier, Jane, MD, 82 of Fond du Lac, passed away on June 5, 1998. She earned a degree in public health nursing at the University of Minnesota and served as a public health nurse in Rock County. In 1948, she earned her BA at the University of Colorado-Boulder and then entered the University of Colorado-Denver where she earned her medical degree in 1951. Doctor Koll-Frazier completed her internship and residency in pediatrics at Denver Children's Hospital in 1954. She practiced in Oak Ridge, TN, from 1954-57 and then returned to her hometown to practice at St. Agnes Hospital and the Fond du Lac Clinic until 1974. She practiced at Taycheedah Correctional Facility from 1974 until her retirement in 1984.

Doctor Koll-Frazier is survived by her daughter, Chris (Dan) Thomas, of Wausau; and two granddaughters.

Monk, Robert S., MD, MS, FACS, 76 of Genesee Depot, passed away on July 27, 1998. He earned his medical degree from Northwestern University Medical School in 1946. He served two years as a captain in the U.S. Army in Korea as an anesthesiologist. Doctor Monk practiced in the Waukesha area for 35 years and during that period was chief of surgery at Waukesha Memorial Hospital, a teacher of anatomy at the Medical College of Wisconsin, and medical director of General Electric Medical Systems in Waukesha. He was known for the research and development of corrected anatomy of the abdomen in medical textbooks prior to CAT scanning and MRI imaging. He was a member of the 1997 SMS Fifty Year Club and received a Year-of-the Volunteer Award in 1963 from the American Cancer Society.

Doctor Monk is survived by his wife, Betty; seven children: Judith (Alan) Reid, of Racine; Robert (Vicki), of La Crosse; Linda Farina and Stuart (Melanie), of Waukesha; Deborah (Robert) Kroll, of Marinette; Steven (Ann),of Rochester, MN; Amy (Jerry) Rector, of Fond du Lac; and 11 grandchildren.

Perry, Edward L., MD, 81, died May 9, 1998 in La Crosse. He earned his medical degree from the University of Wisconsin Medical School and completed his residency at Swedish Hospital, Seattle, WA. Doctor Perry served in the Army Air Force in Europe as both a squadron and a flight surgeon from1941 to 1945, retiring with the rank of Major. Following the war, he completed a fellowship at the Mayo Clinic in Rochester, MN. He then practiced at the Gundersen Clinic for over 35 years and upon his retirement he practiced medicine for Reinhart Company. Doctor Perry served as medical director of the Bethany Home for 15 years, was president of the La Crosse County Medical Society, Fellow of American College of Physicians, member of the SMS Committee on Aging and Extended Care Facilities, Life member of the SMS, and a member of the 1991 SMS Fifty Year Club.

Doctor Perry is survived by his wife, Geraldine; three children: James, of Middle Torch Key, FL; Diane Glaser, of Park City, UT; Lynn Perry, of Heath, MA; and three grandchildren.

Postorino, Joseph D., MD, 83 of Racine, passed away on July 13, 1998. He earned his medical degree from the University of Wisconsin Medical School 1943. He completed an internship at St. Mary's Hospital Medical Center in Duluth, MN. Doctor Postorino served as a Captain in the U.S. Army, 47th Division from 1944 to 1946. He was an active staff member at both St. Mary's Hospital and St. Luke's Hospital, a Fellow of the American Academy of Family Physicians, former Chief of Staff at St. Mary's Medical Center, past President of Racine-Kenosha Family Practice, past President of the Racine County Medical Society, and a member of the 1993 SMS Fifty Year Club.

Doctor Postorino is survived by his wife Mary 'Jeanne'; five daughters: Mary Jo (Cy) Kennedy, Kathleen (Jim) Weiss, Ann (Ted) McKenzie, Karen (Rich) Sherman, Susan (Jim) Jensen; and 14 grandchildren.

Rogers, Albert F., MD, 90, of the village of Oconomowoc Lake, passed away on May 19, 1998. He earned his medical degree from Rush Medical School at the University of Chicago in 1935. He completed his internship and residency at St. Luke's Hospital, Chicago. Doctor Rogers joined the Army Medical Corps as a captain in 1942 and served on active duty during World War II, stationed in New Guinea. He earned the Silver Star for bravery in action.

Doctor Rogers was one of a group of doctors who founded Oconomowoc Memorial Hospital in 1954 and became its chief of staff

in 1970. He was a member of the Waukesha County Medical Society and served as its secretary-treasurer in 1950-1951. He was a member of the 1985 SMS 50 Year Club and an SMS Life Member.

Doctor Rogers is survived by his wife, Barbara; and three nephews.

Sholl, P. Richard, MD, 76, of Janesville, passed away on June 22, 1998. He graduated Phi Beta Kappa from Dartmouth College and Dartmouth Medical School in 1944, from Harvard Medical School in 1946 and was a fellow at the Mayo Clinic from 1950 to 1954. He was a medical officer in the U.S. Army/Air Force from 1948 to 1950. He joined the Pember Nuzum Clinic and continued his practice of thoracic and general surgery at the Janesville Riverview Clinic until 1995. Doctor Sholl was active in several medical organizations: the Wisconsin State Surgical Society Council, the American Cancer Society Board of Directors, fellow of the American College of Surgeons, diplomate of the American Board of Surgery, and Rock County Medical Society president and on its Board of Directors. He was also a founder and board member of the Rock County Surgical Society and the HospiceCare, Inc., Janesville. He was a member of the 1996 SMS 50 Year Club.

Doctor Sholl is survived by his wife, Cynthia; 5 children: Cynthia (Miles) Turner, of Waunakee; John (Barbara), of Winnetka, IL; Richard (Veronica), of Los Angeles, CA; Robert (Jill), of Wauwatosa; Daniel (Pamela), of Apple Valley, MN; and 9 grandchildren.

Skemp, George E., MD, 96, of La Crosse, passed away on May 25, 1998. He earned his medical degree from Marquette University in 1926 and post graduate medical training was completed at Milwaukee County Hospital. With his brother, Archie A. Skemp, MD, he co-founded the Skemp Clinic in 1930.

Doctor Skemp was President of the La Crosse County Medical Society, past Chief-of-Staff of St. Francis Hospital, medical officer of the Medical Detachment 120th Field Artillery Wisconsin National Guard, La Crosse County Corner and Medical Officer, 50 year member of the American Medical Association, member of the 1977 SMS 50 Year Club and SMS Life Member.

Doctor Skemp is survived by his children: Margaret (Bob) Gavahan, of Hartland; Sally Skemp, of Chicago; Dan (Tucky), Theresa Skemp, and Peter (Mary Kay), of La Crosse; a daughter-in-law, Laura, of Wales; 14 grandchildren, and nine great-grandchildren.

Snartemo, Reuben J., MD, 77 of Milwaukee, passed away on July 21, 1998. He earned his medical degree from Marquette University, Milwaukee. He completed his internship at St. Luke's Hospital, Milwaukee and a residency a Milwaukee Children's Hospital. He served in the U.S. Army Medical Corps from June 1945 to September 1947 and May to September 1953. Doctor Snartemo was President of the Milwaukee Pediatrics Society, Associate Clinical Professor of Pediatrics at the Medical College of Wisconsin and President of Lutheran Men in America.

Doctor Snartemo is survived by his wife, Phyllis; daughters, Karen (Gerald) Splittgerber; Christine (William) Rhyne and Noreen (Duane) Rabe; and four grandchildren.

Stone, Mildred, MD, 86 of Wautoma, passed away on July 10, 1998. She earned a BA in journalism in 1933 and her medical degree in 1938 from the University of Wisconsin Medical School. She shared a private medical practice in Berlin, WI, with her husband until moving to Madison in 1951. Doctor Stone was a staff physician at the American Red Cross Blood Bank, served as an allergist for the Middleton VA Hospital, and then went on to private practice at The Cuba City Medical Center until her retirement in 1984. She completed an autobiography, Hen Medic: 50 Years in Medicine, which recounts her success in overcoming the barriers to becoming a physician in what was then a male-dominated profession.

Doctor Stone was a member of the 1988 SMS 50 Year Club, and past president of the Grant County Medical Society.

Doctor Stone is survived by five daughters: Kathleen (Vernon) McGee, of Wichita, KS; K.K. Anderson and Bonnie Stone, of Madison; Linda Stone, of La Crosse, and Rebecca Stone Ready, of Lancaster; three grandchildren and two great-grandchildren.

Thranow, Jr., John A., MD, 60, passed away on April 27 in Manitowoc. He earned his medical degree from the University of Wisconsin Medical School and served his residencies in general practice and surgery at La Crosse Lutheran Hospital and the Gundersen Clinic. Doctor Thranow was in private practice in the Valders area for 21 years before joining the Manitowoc Clinic in 1986. He served as the first chief of staff of Holy Family Memorial Medical Center from 1978 to 1980 and was chief of staff of the former Memorial Hospital. Doctor Thranow was president of the Manitowoc County Medical Society in 1974.

He was a century member of the Bay Lakes Council of the Boy Scouts of America, and was honored in 1978 by the Lakeshore All-Sports Hall of Fame. Doctor Thranow was president of the Valders Athletic Association, served on "The Field of Dreams" committee, and was the player/coach of the Valders City League basketball team of the Eastern Wisconsin Amateur Basketball League from 1969 to 1982.

Doctor Thranow is survived by his wife, Deanna; one daughter, Amber Lynn Thranow of Charlottesville, VA; three sons, Kevin, of Santa Monica, CA; John, III, and Kyle, both of Madison.

Guest Editorial

Advocate for Our Children – Physicians Working with Schools Make A Difference

by Jeffrey H. Lamont, MD

Maybe because I'm a pediatrician, I find that I'm irritated by certain things. You know, asthmatic children brought in by parents who smell like the ashtrays in a bowling alley; feuding divorced spouses who spite each other by sabotaging their child's medical care ("Her mother lets her eat whatever she wants;" "His father won't give him his Ritalin."); the 4,138 different camp, sports and school health exam formats we have to deal with each summer; things like that.

I would add to this list of things that irritate me the statement, "It takes a village to raise a child." "Why?" you ask? Well, not because it isn't true, because it is. In fact, it is so true, so basic in its essential truthfulness, that it may be said that the best way to assess the quality of a community is to look at how that community cares for its children. This can be most easily assessed by looking at two things – a community's library and its school system. These, more than anything else, speak to the public's commitment to education, to its children, and to its future. And this is where the "village – child" assertion becomes irritating. There probably isn't another aphorism around that is a better example of the gulf between empty rhetoric and a not-so-kind reality.

On one hand, a public school district is privileged to provide the critical element in this country's commitment to every person's right to "life, liberty, and the pursuit of happiness." That element is universal public access to a quality primary education. On the other hand, that's a tall order. You see, "public education" means educating the public. All of the public. Rich and poor. Well and infirm. Gifted and challenged. Those from strong, nurturing families, and those whose home lives are a living hell. Public schools are mandated to take all comers. Mandates aside, most public school teachers and administrators wouldn't have it any other way. We can all be glad that this is so, for this is the essence of the American Dream.

As time has gone on, however, meeting this responsibility has become increasingly difficult, and ironically, has placed schools more in conflict with the communities they serve.

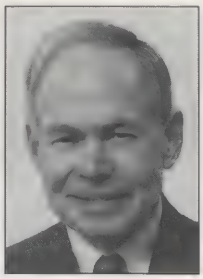
Schools are called upon today to deliver a level of medical care to children that would have been unheard of a generation ago. Schools are also being called upon to address the effects on children of social changes – single parent families, working parents, foster living arrangements, immigrant families – on a scale quite beyond their control. The modern village demands this increased level of school intervention in students' lives; it increasingly demands that the school raise the village's children.

Why, then, are schools criticized for "intruding" into family matters, and of "wasting money" to develop required programs to meet student needs? It may be that our villages are ignorant of our children's needs, and of what schools must do to address them. The village may be prejudiced against some of its needy children, and may resent helping them. The village may resent the laws that had to be created to ensure that every child and family is given a fair chance at the American Dream. Finally, the village may be feeling a little uncomfortable with the guilt that comes from knowing that it has helped create some of the problems it expects its public schools to solve. Our schools and the children they serve need good friends in the community; and, when you come right down to it, who could be a better friend than a physician?

As the new school year gets underway, I hope each of you will consider using your expertise, your independence, and your standing in the community to advocate for schoolchildren. Find out what the medical issues are in your schools. Offer your help to your district's medical advisor, or offer to take on the job yourself. Consider running for school board. If nothing else, make your community better aware of the challenges facing its children and schools. Don't allow ignorance and prejudice to go unchallenged. Above all, do not underestimate the respect your involvement and opinion command.

"It takes a village to raise a child." Empty rhetoric, or a better reality? Physicians working with schools can make all the difference. Let's help our villages raise our children!

Jeffrey H. Lamont, MD, is Chair of the Pediatrics Department at Wausau Hospital and serves on the Board of Directors of the Bridge Community Health Clinic. Doctor Lamont is an Assistant Clinical Professor at the University of Wisconsin.



Guest Editorial

"2% by 2000" to Prevent Child Neglect and Abuse

by Jack C. Westman, MD

Decades of research have clearly demonstrated the link between child neglect and abuse and our social problems, especially juvenile and adult violence and crime. That research also confirms what common sense suggests: the most effective prevention of violence and other crimes focuses on the home and begins before and at the birth of a child.

New imaging techniques clearly demonstrate the vital role that parenting plays in the brain development of children. More specifically, babies and young children require predictable nurturing in order to develop effective consciences. If this window of opportunity in brain development is missed, later years of costly remediation, although helpful, cannot fully repair the resulting damage.

An important study commissioned by the National Institute of Justice, Preventing Crime: What Works, What Doesn't, What's Promising, reported in 1997: "Perhaps the most promising results in all areas of crime prevention are found in the evaluations of home visitation programs." This study summarized the evaluations of 18 programs that include a home visitation component. This finding affirms the positive nationwide experiences with *Family Resource Centers, Healthy Families, Parents as Teachers*, and other family support programs.

All new parents can profit from education. But the parents of the 13,500 babies born at risk of neglect and abuse each year in Wisconsin need specific help through family support networks that include home visitation. These family support networks should be available to the parents of all children from the pregnancy of the first child through their child rearing years.

A family support network consists of a family resource center anchored in prenatal care in the health care system at one end and extending through home visitation to family preservation and child protective services in the social service system at the other end of a continuum of community resources.

From Intent to Action

Wisconsin has an opportunity to make a modest and wise investment now to effectively reduce crime by developing family support networks throughout the state. The *Truth in Sentencing Act* recently signed by Governor Thompson requires that the Secretary of Health and Family Services devote the equivalent of 1% or greater of the Department of Corrections budget to the prevention of child abuse and neglect.

Interest in having family support networks has been expressed from over 380 communities in Wisconsin. These networks would be tailored to the needs of each community and integrated with existing services for children and families. They would provide resources for all parents beginning with prenatal care and extending through home visitation to family preservation and support services for parents most at risk of neglecting or abusing their children.

In order to build these networks, state leadership and participation in local funding is needed. Mature corporations invest 5% of their annual revenues, and our nation invests 2.5% of its Gross Domestic Product, in preparing for the future.

Wisconsin Cares, an organization of retired professionals in the legal, medical, social work, education, administrative, and business fields, estimates that the equivalent of 2% of the Department of Corrections budget, which has increased by over $200 million to $1.3 billion for the current biennium, would provide seed money so that family networks could be available to all parents of Wisconsin newborns.

We have a chance to straighten out our priorities. It makes no sense to continue to spend increasing amounts of money on imprisoning offenders and defer doing what we know needs to be done to keep children from becoming criminals. By linking the prevention of child neglect and abuse with the costs of prisons, Wisconsin can lead the nation in the prevention of crime, as it is in welfare reform.

We must make a serious commitment to preventing the neglect and abuse of every newborn in

Continued on p. 45

Doctor Westman is a Professor Emeritus of Psychiatry at the University of Wisconsin Medical School.

Guest Editorial

Caring For Our Most Valuable Natural Resource: School Age Children

by Cindy S. Ericksen, RN-C, MSN, FNP

Delivering health services in the school setting is both a challenge and an opportunity. The challenge includes meeting the multiple health needs of students within communities experiencing dwindling health care resources, and working within an academic rather than health care system.

When health services first became part of school programs at the end of the 19th Century, its primary role was communicable disease control.[1] Changes in society, health care delivery, education and the family have increased the need and demand for school health services. New ways of thinking about school health services are emerging as school systems develop coordinated school health programs to address the diverse and complex health problems of today's students. Increasingly, educators recognize that children's ability to learn is affected by their physical and psychosocial health. Although the full potential of school health services has not yet been realized, its place as an integral component of the educational system is indisputable.

Although a universally-accepted definition for the term school health services does not exist, school health services may be described as a coordinated system that ensures a continuum of care from school to home to community health care provider and back.[2] Traditionally, communicable disease prevention, first aid and health screening have been a part of Wisconsin school health services. Due to increasing numbers of students across the nation entering school doors with chronic health problems and special health care needs, individualized health care plans, emergency care, medication administration, specialized health care procedures, implementation of policies addressing issues such as HIV and confidential health records and provision of health education and counseling for students and staff have emerged as essential school health services.[3] While research-based information is limited in Wisconsin, anecdotal information collected from school administrators, school nurses, parents and physicians by the state school nursing consultant support this finding.

Increasingly, educators recognize that children's ability to learn is affected by their physical and psychosocial health.

Health Services

Understanding the legal basis of school health services is important for understanding how the program functions within the broader school health program and the overall school and community environments. State law requires schools to establish working relationships with registered nurses, physicians, local health departments, human service agencies and other community institutions responsible for the safety and health of its school-aged youth. For example, s. 121.02(g) requires boards of education to establish working relationships with registered nurses and physicians for the purposes of policy development, annual review of the health service program and ensuring that emergency nursing services are available to all students during the school day and during school sponsored activities on or off the school campus. Additionally, federal laws such as Individuals with Disabilities Education Act, Revised 1997; Section 504 of the Rehabilitation Act of 1973; and Americans with Disabilities Act, 1990, require schools to provide a "free and appropriate education' (FAPE) to children with disabilities. FAPE includes special education and related services such as school health and nursing services for children with disabilities that have chronic health conditions requiring special health care procedures during the school day.

Cindy Ericksen, RN-C, MSN, FNP, is a consultant with School Nursing and Health Services, Wisconsin Department of Public Instruction.

Staffing

Currently, slightly less than half (49%) of the 426 public school districts in the state hire their own school nurse(s), while almost a third (31%) of school districts have memorandums of understanding or contracts with county or city health departments for some level of nursing services. Nine school districts employ or contract with Cooperative Education Service Agencies for nursing services. A small number of school districts employ or contract with home health agencies (1%), hospitals (1%) and medical clinics (<1%) for nursing services in the school. Sixty-three (15%) school districts do not have a relationship with a registered nurse and 79 (19%) school districts do not have a relationship with a physician.[4]

The National Association of School Nurses (NASN) recommends the following minimum standard ratios of school nurses to students: one nurse per 750 students for the general school population, one nurse per 225 mainstreamed students with special health care needs and one nurse per 125 severely disabled students.[5] While Wisconsin does not have a student-to-nurse ratio recommendation, the Wisconsin Board of Nursing recommends nurse-to-student ratios that take into consideration the quality and complexity of the health needs of students, the availability of nurses and assistive personnel to provide care and the need to ensure adequate supervision of assistive personnel.[6] These recommendations are consistent with the guidance of NASN. Among the school districts with school nurses, the ratio ranges from 194 students to 1 school nurse to 19,941 students to 1 school nurse.[7] There is minimal research-based information available to inform a discussion about the health of Wisconsin school children, school nurses or nursing interventions in schools other than descriptions of compelling health related education needs of students and anecdotes about situations confronted and resolved. A number of school nurses have begun to collect, interpret and organize school health data and synthesize the information so that interrelationships can be identified and utilized to inform nursing practice and school health program planning. The data becomes a strategic tool when advocating for resources, support, and changes in school health policy. A standardized school health data set has not yet been established at the state level and presents a challenge when attempting to assess and respond appropriately to the school health service program needs, inform health and education policy discussions, and advocate for resources at the state level.

Professional Preparation

School nurses represent the primary provider and coordinator of school health services in Wisconsin. However, efforts to control school health care costs have given rise to the increased use of unlicensed assistive personnel, for whom there are no standards, and efforts by some school boards to get cheaper school health personnel. As schools experiment with unlicensed and less-qualified nurses, the Department of Public Instruction advocates that schools strongly recommend that nurses become certified in school nursing, if prior professional experience and preparation does not include the specialty practice of school nursing.

Adequately-trained professional school health services staff are the cornerstone of a school health service. The American Academy of Pediatrics, the American Nurses Association and the NASN school nursing practice standards highlight the importance of having adequately trained and certified health services professionals working in schools.[8,9] Certification as a school nurse is offered through the Wisconsin Department of Public Instruction and two other national certifying bodies. While the current certification process is permissive in Wisconsin, nurses, school administrators and community health institutions should note that certification can be helpful in clarifying the education, training and experiential background nurses practicing in the school setting will need to be an effective practitioner.

Conclusion

Wisconsin requires schools to provide school health services and maintain school health information. Many schools provide essential school health services including screening students for potential hearing and vision problems, maintaining immunization and other health records, providing first aid and special health care procedures. Some schools provide expanded school-based or school-linked primary care services. Few schools provide a coordinated, comprehensive level of essential school health services.

Physicians can get involved in school health service programs by building working relationships with schools and other community partners to foster mutual commitment and responsibility for student health and academic achievement, physicians can advocate for a systematic, comprehensive process that will help state, district, and school-level officials assess and respond appropriately to the school health services needs of students in their communities. Contact can be made with the Department of Public Instruction or Department of Health and Family Services – Directors of Comprehensive School Health

Continued on p. 45

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Critical Adolescent Health Issues: Results of the 1997 Wisconsin Youth Risk Behavior Survey

by Douglas White, MS, and Montez Coleman, MA

Introduction

The Centers for Disease Control and Prevention has determined that six categories of behaviors contribute to the leading causes of morbidity and mortality in the United States. These are: behaviors that contribute to unintentional and intentional injuries; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and STDs; unhealthy dietary behaviors; and physical inactivity. These behaviors, which frequently are interrelated, often are established during youth and extend into adulthood.[1]

Preventing these six categories of behaviors will have tremendous results for the health, education and development of young people and result in greatly reduced health care and social costs. CDC encourages communities to establish comprehensive school health programs to help prevent these behaviors, and supports states, including Wisconsin, in efforts to enhance school health programs. One such support is the Youth Risk Behavior Survey Surveillance System, a national, state and local school-based survey to monitor priority health behaviors and provide data for planning school health programs.

The 1997 Wisconsin Youth Risk Behavior Survey,[2] included questions on each category of risk behavior and on protective factors such as developmental assets and access to health care. Implemented by the Wisconsin Department of Public Instruction and the Wisconsin Survey Research Laboratory using CDC standard methods, the results comprise the best statewide data on these critical health issues. Wisconsin's is the first statewide survey to include extensive analyses to identify co-variation of risk behaviors and assets. The results are representative of Wisconsin students in public schools, grades 9 - 12, and are used to make important inferences about their health behavior. Complete descriptions of the methods, results and analyses are available in a printed report from the Wisconsin Department of Public Instruction and on the World Wide Web at: www.dpi.state.wi.us/dpi/dlsea/sspw/yrbsindx.html.

Additional state and national data are included in the report to provide a broader context for the results. Comparable national results were not available at time of publication, though previous results indicate few differences between Wisconsin and nationwide youth.

Results

General findings indicated that high school students who reported positive values and identity, and social support from schools, parents and the community were much more likely to abstain from tobacco, alcohol, other drugs, violence against others, suicide attempts, and risky sexual behaviors. Items included family support, rules and supervision; school support; commitment to learning; positive values such as caring and integrity; social competencies such as decision making skills; and positive identity such as optimism about personal future. For purposes of analysis, these were combined into indices and compared with indices of risk behaviors such as alcohol and other drug use and violent behaviors.

Further analysis showed strong correlations among some risk behaviors. For example, students who reported regular alcohol use were much more likely to smoke, use other drugs, be sexually active, exhibit risky behavior in vehicles, and carry weapons than those who do not drink.

Specific highlights of key risk behaviors follow. Additional analyses by gender and grade are found in the full report. Analyses by county or community are not available, although some communities do elect to implement the survey locally.

Risk behaviors generally increased with age. For example, 18% reported having sexual intercourse by age 14, while prevalence of students who had ever had sex increased from 32% to 62% between 9th and 12th grades.

Risk Behavior	% of Students
Weapons carrying, past 30 days (non-hunting)	15
Rode with drinking driver, past 30 days	36
Tobacco use, past 30 days	36
Alcohol use, past 30 days	50
Alcohol use, 5 or more drinks, past 30 days, of current drinkers	31
Inhalant use, lifetime	16
Sexual intercourse, lifetime	41
Did not use a condom during last intercourse, of those sexually active	40
Exercised on fewer than 3 days, past week	37

Compared to the 1993 Wisconsin Youth Risk Behavior Survey, 1997 results indicate a decrease in weapons carrying, especially among males, and a small marginally significant decrease in sexual intercourse. A significant increase in the percentage of students who have attempted to quit smoking was also noted. Most 1997 results do not significantly differ from 1993.

Results on health care access revealed that nearly one in five students reported that there was a time in the past 12 months when they wanted or needed health care or advice but did not get it. The most common reasons were being afraid, inability to pay, and not knowing where to go. When asked where they would go for advice or help with a sexually transmitted disease (STD) or pregnancy, nearly a quarter said that they did not know.

Discussion

The high correlation of some risk behaviors provides additional support for integrated approaches for preventing multiple health risk behaviors such as comprehensive school health programs. The powerful protective effects of assets such as social support and positive values lend additional support to strategies based on building such protective factors to complement risk reduction strategies. The wide prevalence of health risk behaviors among youth demonstrates the need to continue and strengthen primary prevention efforts to help young people develop the values, attitudes, skills and knowledge that will help them develop positively and remain healthy. Comprehensive school health programs offer a powerful framework of effective strategies to target health risk behaviors and promote health, development and educational success.

Physicians can help prevent these risk behaviors by assessing them, discussing healthy behaviors, and offering support for behavioral maintenance or change for their adolescent patients and their parents or guardians. Physicians can also take part in or advocate for school-based and school-linked programs to prevent health risk behaviors in children and adolescents. The need for such efforts is great as clearly demonstrated by the Wisconsin Youth Risk Behavior Survey.

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Wisconsin's Comprehensive School Health Program (CSHP)

by David F. Gundersen, MPH, Director, School Health Programs, Wisconsin Department of Health and Family Services

Every school day, 50 million young people attend more than 110,000 schools across our nation. Given the size and accessibility of this population, our schools can make an enormous, positive impact on the health of the nation. For as long as there have been public schools in America, the "captive audience" of the school has drawn great interest from health advocates. Ben Franklin advocated that schools provide a "healthful situation" and that physical exercise be a primary subject in the schools developing in his time. When New York City was hit with a smallpox outbreak in the 1860s, the Board of Health went to the schools as a mechanism for providing free vaccinations, eventually leading to vaccination requirements for enrollment.[2] The reality of having children in one setting provides an appealing opportunity to develop the knowledge, attitudes, and skills important to healthy development. In addition, the facility of the school offers a venue for providing basic health services during or out of regular school hours.

However, even the proposition of a school health program raises a number of compelling questions. Besides the parent, who should be advocates for our children's health? What responsibility do both public and private institutions have in promoting the health and development of our youth? What roles do the schools have in the health of children? Clearly, the answers to all of these questions are as varied as the child, the family, the school, and the community for which the question is asked. But in every situation, there are answers to the questions of how best to serve the health and success of our children, and we neglect our children's futures if we do not search for those answers.

> *"What is very clear is that education and health for children are inextricably entwined. A student who is not healthy, who suffers from an undetected vision or hearing deficit, or who is hungry, or who is impaired by drugs or alcohol, is not a student who will profit optimally from the educational process."*
>
> J. Michael McGinnis, Director
> Disease Prevention and Health Promotion
> U.S. Public Health Service

Vision for School Health

There are some basic facts that inspire the need for working with the schools to improve the health of children. About 2/3 of all mortality among adults result from three causes: heart disease (34%), cancer (25%), and stroke (7%).[3] These health problems are significantly influenced by just three categories of behavior: tobacco use, dietary patterns, and physical inactivity. In addition, among 5- to 24-year-olds, only four causes account for nearly 3/4 of all mortality: motor vehicle crashes (29%), homicide (20%), suicide (12%), and other injuries (11%). Finally, every year nearly 1/4 of all new HIV infections, 1/4 of all new infections with other sexually transmitted diseases, and one million pregnancies occur among our nation's teenagers.[4]

As a result, the CDC has targeted the following six risk behaviors in their prevention work: tobacco use, alcohol and other drug use, sedentary lifestyles, poor nutritional habits, sexual activity leading to STDs, pregnancy, and HIV infection, and intentional and unintentional injury. Although the origins of these behaviors differ, they are usually established during youth, persist into adulthood, are commonly interrelated and, most notably, are largely preventable. In addition to causing serious health problems, these behaviors can be linked to many of the educational and social problems that confront Wisconsin and the nation, including failure in school, motor vehicle accidents, suicide, unemployment, unintended pregnancy, and crime.

With these facts leading the way, the CDC established the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), within

which it created the Division of Adolescent and School Health (DASH) in 1988. The mission of DASH is to identify the highest priority health risks among youth, monitor the incidence and prevalence of those risks, implement national programs to prevent risks, and evaluate and improve those programs. DASH currently provides fiscal support and technical assistance to every state education agency, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, Guam, the U.S. Virgin Islands, the Marshall Islands, the Northern Mariana Islands, and 18 local education agencies that serve cities with the highest number of reported AIDS cases. Some activities associated with this effort include:

- developing and implementing health education and school health policies;
- developing, revising, disseminating, and recommending for adoption curricula that focus on developing prevention and health promotion skills;
- training teachers to carry out effective prevention efforts;
- monitoring the status of health education and of risk behaviors among youth;
- evaluating program effectiveness.

Comprehensive School Health Programs (CSHP) in Wisconsin

The CDC recognized early in its discussion of school health that they would have to develop state-level authorization and support if comprehensive school health programs were to have lasting impact. In an effort to foster school and community relationships in the development of school health programs, the CDC has provided support to the Wisconsin Department of Public Instruction (DPI) and the Wisconsin Department of Health and Family Services (DHFS) since 1993.

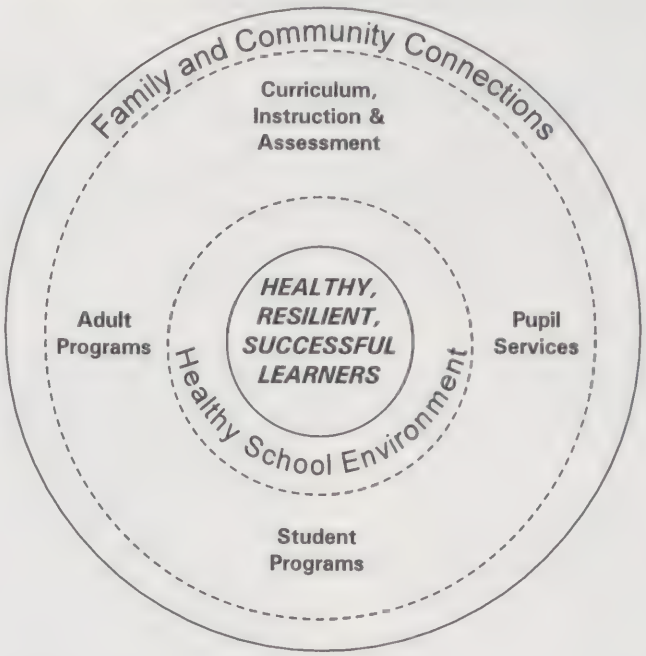

Figure 1: Wisconsin's Framework for Comprehensive School Health Programs

These agencies provide support and leadership to communities in the planning, implementation and evaluation of school health initiatives. Wisconsin is one of 15 states receiving this infrastructure support from CDC and is considered a national leader. The increased organizational capacity developed through Comprehensive School Health Programs enables Wisconsin's health and education agencies to work jointly with local school districts, health departments and other community and youth-serving organizations to support school health efforts across the state.

In cooperation with the CDC, Wisconsin has developed a framework for promoting positive youth development and preventing risk behaviors through Comprehensive School Health Programs (CSHP). The Wisconsin Framework for Comprehensive School Health Programs (Figure 1) provides an organizational structure for a multi-strategy approach for promoting the health, well-being, and development of students and other members of the school community. The Wisconsin Framework for CSHP is comprised of six component areas, each of which is connected and integrated with the other components. These components include: *Healthy School Environment*; *Curriculum, Instruction, and Assessment*; *Pupil Services*; *Student Programs*; *Adult Programs*; and *Family and Community Connections*. Table 1 provides the definitions of each component and some selected examples of activities associated with each component. The Wisconsin Framework provides a flexible organizational tool that can be used to support the development of programs and initiatives that address the health and development needs identified by communities across the state.

Roles of Physicians

The participation of education, health and community leaders is an integral part of effective school health programs. Physicians and other health care providers can play an essential role in supporting

Table 1: Wisconsin Framework for CSHP, Component Definitions and Examples

Component	Component Definition	Examples
Healthy School Environment	Development of a culture and climate that exist within the school that supports the physical, mental and emotional well-being and safety of all its members	• Nutritional lunches; • Positive teacher-student relationships and communication; • Peer mediation and conflict resolution; and • Clean and safe schools
Curriculum, Instruction, and Assessment	The planning, implementation and evaluation of an integrated and multidisciplinary PreK-12 curriculum that addresses health and safety issues. This curriculum is sequential and developmentally appropriate.	• Nutrition, physical activity, and physiological health education; • Historical trends in health and health care; • Human growth and development; • Critical thinking, decision-making, refusal, conflict resolution and negotiation skills; and • HIV/AIDS education
Pupil Service	The systematic coordination and collaboration of the four core disciplines of school psychology, school social work, school counseling, and school nursing.	• Screening, assessment, and provision of direct health-related services; • Education and outreach to students and their families; and • Referrals to human services, health care providers, health departments, law enforcement, and community-based organizations
Adult Programs	Coordination of information and support to adults directly involved in the care and education of students.	• Professional development for staff; • Parent education programs; • Employee assistance and wellness initiatives; and • Mentoring and volunteer programs
Student Programs	Opportunities provided to students that fulfill primary, secondary, and tertiary prevention activities.	• Volunteer and service organizations; • Extracurricular teams and clubs; • Peer mediation and mentoring programs; and • Student assistance programs
Family and Community Connections	Formal and informal working relationships between schools, community and families.	• School-community advisory councils; and • Networking, cooperation, coordination, and collaboration on school and community health initiatives

or even initiating school health ventures. Only interest and enthusiasm limit the role a physician can play in school health. A physician offers not only his or her medical skills, but also brings essential knowledge, community influence, and leadership potential to school health efforts. The following is a brief list of roles a doctor can play in school health programs:

Policy Development

- Advocate for the health care industry involvement in school-based and school-linked primary and preventive health care for children
- Advocate for policies related to prevalent risk behaviors, including gun lock initiatives, helmet laws, and the inclusion of patient history questions about risk behaviors
- Advocate for environmental policies in schools, including no smoking rules, physical safety issues, bike helmets, improved nutritional services, and physical activity and exercise requirements
- Advocate for municipal and state laws addressing major health issues, including tobacco accessibility and stricter DUI laws
- Facilitate local data collection and needs assessments
- Join the school board or health advisory board in your district

Education

- Offer to give expert input in curriculum development
- Offer to be a guest lecturer in classes (across the curriculum), staff meetings, or parent events
- Coordinate health messages given through practice with health messages given in schools
- Arrange for students to visit office, participate in career development programs
- Take part in community outreach and education, including parent advisory councils and parent education programs

Health Services

- Provide on-site services, including health centers or clinics when needed by community
- Promote the inclusion of school health experiences in residency and/or continuing education programs
- Arrange for outreach and screening at the school
- Offer to provide services for students referred through school screenings
- Provide coverage of school sporting or other extracurricular events

Conclusion

Wisconsin is a national leader in school health programs and continues to develop its infrastructure and also its relationships with the CDC and other national organizations interested in comprehensive school health. As a result of Wisconsin's work with CSHP, numerous schools, communities and organizations across the state are developing coordinated and effective school health initiatives. In addition, in cooperation with the Wisconsin PTA, AAP, and other state-level education and health leaders, the Wisconsin School Health Coalition was established in the spring of 1998 to advocate for school-age youth and school health issues.

If you are interested in getting involved in local, state, or national school health efforts, or want to learn more about Wisconsin's CSHP, please contact David Gundersen, DHFS, at (608) 267-0944, or Doug White, DPI, at (608) 266-5198.

There are many questions in need of answers as communities develop school health programs. The medical community's leadership in school-based and school-linked prevention, education, and service delivery can help answer these questions and assure a healthier future for our children.

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Wisconsin's New Guide to School Nursing and Health Services

by Cindy S. Ericksen, RN-C, MSN, FNP

Children and youth bring a variety of health concerns through school doors which school nurses and health services personnel must address. The Department of Public Instruction's new school nursing and health services guide outlines essential school health service programs designed to ensure a safe, healthy environment conducive to learning and the provision of professional care for students with chronic health conditions and those who become ill or injured while at school.

School Nursing and Health Services: Resource and Planning Guide was developed by those who would frequently use such a resource, namely, school and public health nurses, educators, health care providers, administrators, pupil service providers, parents and university professors. Financial support for the publication was provided through cooperative agreements with the federal Centers for Disease Control, Division of Adolescent Health and Department of Education, Safe and Drug Free Schools. The guide describes a collaborative framework that promotes safety, health and well-being of students as an integral part of the school's mission. The delivery of school health service programs is carried out within the context of students and their families, health care providers and community institutions responsible for the safety and well-being of youth. From monitoring immunization status to developing coordinated school health programs, the guide helps school nurses, school medical advisors, school administrators and community partners better understand the roles and responsibilities of health personnel in the school environment.

Beginning with a statistical snapshot of Wisconsin school-age children and youth, the guide confirms the need for community-based, coordinated school health services. Following a thorough description of the specialty practice of school nursing, the guide devotes individual chapters to essential services commonly provided in schools. Health education, immunization, communicable disease control, medication administration, child protection, health appraisals, emergency care and children with special health care needs all receive in-depth attention. Throughout these chapters, the health and safety needs of students and associated professional standards and guidelines are highlighted. Along with the standards of nursing and medical practice the guide discusses state and federal laws and regulations in detail. Knowledge of and adherence to statutes and administrative rules is critical when designing and sustaining school health programs. Chapters on administrative issues and available national, state, and regional resources conclude the book. Multiple appendices offer sample forms, logs, procedures, guidelines and other operational information useful to a wide variety of readers.

To order *School Nursing and Health Services: A Resource and Planning Guide*, contact Publication Sales, Wisconsin Department of Public Instruction, Drawer 179, Milwaukee, WI 53293-0179, call (800) 243-8782 or e-mail pubsales@mail.state.wi.us.

Cindy Ericksen, RN-C, MSN, FNP, is a consultant with School Nursing and Health Services, Wisconsin Department of Public Instruction.

Health Services in Madison Metro School District

by Mary Wachter Gulbrandsen, RN, MS, CPNP, and Freddi Adelson, RN, MSD, CPNP

Introduction

Helping children participate fully in their learning, feel safe about accessing health care services that they need and reducing or eliminating health problems or concerns that are or might be a barrier to a student's learning are the goals behind the health services program in the Madison Metropolitan School District. School. Health services are thus an integral part of the educational mission.

Madison Metropolitan School District [MMSD] nurses and nurses' assistants handled 267,566 visits to the school health offices during the 1997-98 school year. This translates to about 1,400 student visits each school day. The number of students seen in a health office on a daily basis may range from 30 in a small elementary school to well over 100 in a large high school. Students access the health office for different reasons including acute and chronic illness, injury, and unmet basic needs, screening and to ask questions or express concerns about their health. (See graph 1 – Health Office Visits by Reason.)

The presence of Health Services staff in all schools has a positive impact in ensuring that students who are healthy are in class or return to class after health office visits. Of the students assessed in the Health Office, 89% were able to return to class within 15 minutes, and another 4% returned to class after an extended health office visit. Five percent of the students seen were sent home due to illness or injury. The remaining 2% are divided among referrals for dental [165] or medical [2,177] care, referrals to other school support [1,044] staff, rescue squad calls [57] and visits with no disposition listed [683].

While the school district as a whole has 25.5% of students who receive Free and Reduced Lunch [FRL], an indicator of poverty, 45% of the health visits were made by this group of students. (See graph 2 – School Nurse Roles Outside Health Office.)

About 80% of health office visits are managed by school nursing assistants as the role of the school nurse includes responsibilities beyond assessment and care for ill and injured students in the health office.

School health office staff cares for many children with chronic illnesses. The incidence of several specific chronic illnesses (asthma, attention deficit hyperactivity disorder) has increased dramatically in our school population over the last decade. Other chronic illnesses have remained relatively stable or shown small increases (Table 1). While there are a variety of chronic illnesses, all students with a chronic illness need to have a plan so that the chronic illness does not interfere with their education. For example, students with chronic asthma need the assessment skills of school nurses to determine if they are experiencing compromised respiratory function. Students may need to use prescribed inhalers on a regular basis. They may require nebulized medication on a scheduled or as-needed basis during the school day. School nurses are regularly involved in carrying out medication trials for students with ADHD. These school health services are provided so those students with chronic illnesses are able to participate and achieve to their highest level.

All students are assessed within guidelines developed specifically by Health Services staff. These guidelines direct what subjective information is collected from a student and which objective observations must be made. An assessment is made and a plan formulated. In some cases, the guidelines dictate the plan of care, especially if a student must be excluded from school.

School nurses spend about 43% of their working time as health advocates for individual students. In this role, nurses communicate with parents, school staff and outside agencies; observe students in different settings; train staff to perform delegated nursing procedures; make home visits; manage medication administration; arrange medical and dental appointments; take students to medical and dental appointments; and arrange transportation to and from these appointments.

Medication management is a prominent part of each school nurse's day. (Many changes in the

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Table 1. Number of students identified with specific chronic health concerns.

	1987-88	1997-98
Asthma	834	2221
ADHD	201	1150
Diabetes	38	51
Malignancy	26	22
Neurological	242	391

Table 2. Number of students taking medication or having procedure during school day.

	1987-88	1997-98
Daily Medication	165	878
Daily Procedure	25	50
PRN Medication	251	792
PRN Procedure	28	191

role of the school nurses are directly related to the increase in medication administration and the need for procedures during the school day — Table 2).

Medication orders change throughout the school year. Doses are increased and decreased, administration times are modified, or prescribed medications are changed to different ones. Since there are very specific guidelines governing the administration of medication in the school setting (written physician order and written parent permission for all prescribed and over the counter medication), the administration of medication requires meticulous attention to detail to guarantee that students receive correct and timely medication.

Concerns about the safe transport of medication to and from school have led district staff to explore alternative ways of receiving medication (i.e., contracting with a pharmacy service that provides unit dose medication and delivery service to each school site).

Collaborative Services

A number of collaborative efforts have occurred in Madison to meet the health needs of children. Examples include:

Community Collaborative Clinics

The Asthma Community Health Clinic is held at the Salvation Army neighborhood community center. This site was chosen instead of the school because of the close proximity to families. Health care providers from Dean Clinic, Physician's Plus HMO, Meriter Hospital, Unity Health Plan, Group Health Cooperative, Madison Public Health Department, and Madison Metropolitan School District worked together to organize and direct the clinic. Asthma educators, nurse practitioners, school nurses, public health nurses, and physicians come together to provide assessments, treatment, follow-up, education and referral to children in the Darbo-Worthington neighborhood. Free medications and food were also available in part by Glaxo Wellcome.

The Dane County Task Force on *Health Check* was renamed the Dane County Coalition for Neighborhood Child Health. This is a collaborative effort of public and private providers who work to bring physical exams and other health services to children who would otherwise have difficulty accessing care. Services to all children in need, including those without insurance are provided free of charge. Children who are found to have larger health care issues are given appropriate referrals through our network of participating providers.

Roll up Your Sleeves is a program for Hepatitis B prevention and immunization for sixth graders. The state of Wisconsin joined schools across the county in this effort. Locally, Roll up Your Sleeves is the result of a partnership between the Dane County Immunization Coalition and public and private schools in Dane County. For the first time, Hepatitis B was required by Wisconsin State Immunization Law for all students in grades kindergarten and 7 in the 1997-98 school year. During the school year, school nurses provided all sixth grade students with a class about why Hepatitis B is such a health threat, how to protect themselves, and that immunization is the most effective form of protection. Parents were offered the opportunity to have their child receive the three-dose Hepatitis B series at school. There is no cost to the parent or the school district for the immunization. During the first year of this program, 470 students were immunized at school, and almost all of the remaining students in the grade cohort received the immunization at their own clinic or public health department.

Health Check Collaboration

Beginning in August of 1995, MMSD Health Services contracted with Group Health Cooperative (GHC) on a pilot basis to improve the percentage of GHC members zero to 18 years old who are Medical Assistance enrollees to receive annual health checks. Health checks are comprehensive physical examinations including preventative counseling, dental screening and administration of vaccines. The project involves weekly Monday afternoon clinics in targeted schools to provide services to children needing exams. In addition, each school nurse receives, on a monthly basis, lists of children in their schools needing health checks; the nurse can then be helpful in encouraging families to make appointments with their GHC providers and arranging transportation if necessary. Data analysis at the end of the 1995-96 school year indicates that the project was successful in increasing the percentage of GHC children receiving health checks from 61% to 90%. Additionally, other bene-

fits to students and the district as identified in a focus group process included:

- Improved immunization rates and accuracy of dates.
- School-based weekly clinics have provided a positive link with the total school system.
- Enhanced working relationship with GHC has helped nurses coordinate care for accurate and chronic illnesses, decreasing the amount of time out of school.
- Families have expressed positive feedback about the collaboration visible between school and community.

The school nurse, a Nurse Practitioner from MMSD supported by contractual funds and a GHC community nurse, staff the clinics.

School / Community Partnership Project

Due to shrinking resources and increasing social needs, the MMSD has had a rise in the numbers of children in poverty for whom unmet health care needs interfere with children's success in school. Programs linking education, health and social services are needed to benefit children.

In response to this need, the pediatric nurse practitioner at Lincoln Elementary School began a partnership with the University of Wisconsin School of Nursing and the Madison Community Health Center- South (MCHC). The school nurse began seeing children at the MCHC in June 1996 with a pediatric nurse practitioner student from the university. The MCHC provides primary health care services including health maintenance visits, immunizations, treatment of minor injuries and health conditions, management of chronic diseases, and referrals to specialists. The center is located in a neighborhood with economic and cultural diversity. It is the only clinic in Madison serving people from all over the county offering reduced fees for service.

The goal, "to establish a community partnership with the school district to enhance the provision of health care services to underserved children" has been satisfied.

Funding Issues

Funding health services in schools will continue to be a challenge, as educational dollars become increasingly scarce. Accessing federal medical assistance dollars for school health services for eligible children is an option that many school districts, including the Madison Metropolitan School District, are exercising. However, neither the health nor the educational success of young people will be achieved until communities, as a whole, decide that the health of children is a priority and set common goals by which to measure the success of their programs.

Today, as always, families are - or should be - the center of all children's' lives. The mission of public schools is educating young people to be productive members of society. That mission can only be accomplished by bringing children, their families, and services including public and private health care, together in coordination and collaboration. Schools should be a critical part of this collaboration.

Conclusion

It is believed that all children in Madison should receive regular health care exams as determined by an agreed-on periodicity schedule, be immunized at recommended levels, have a primary health care home, should not miss school because of an inability to access health care, and should have urgent care available to them regardless of setting. In the process of determining how to best meet these goals for children of Madison, other community public and private health care providers have joined in the effort to meet these goals. It is hoped the use of technology will be incorporated into this framework also, to ensure that children receive continuity of care.

Good Breakfast for Good Learning

by Jon Janowski, MPA

Abstract

Established in 1966, the federal School Breakfast Program (SBP) was created to provide nutritious morning meals to school-aged children. In Wisconsin, utilization of the program is poor; nationally, Wisconsin has ranked last in school breakfast participation in each of the last three years.

An effort to improve school breakfast participation in Wisconsin is being conducted by 11 organizations through a campaign entitled "Good Breakfast for Good Learning (GBFGL)." The GBFGL campaign was initiated in 1996 by the Maternal and Child Health Education and Training Institute (Wisconsin Area Health Education Center system). The group's concern is that many children in Wisconsin begin their school day without a nutritious breakfast. The GBFGL sponsors organize presentations in schools and communities and distribute outreach materials to school administrators, teachers, parents, food service personnel, and children. Through these efforts, the GBFGL sponsors build interest in and awareness of the School Breakfast Program and attract support for the program's expansion.

Jon Janowski received his B.A. from St. Norbert College, 1990; Master of Public Administration Degree from UW-Milwaukee, 1994. He worked as a fiscal policy analyst for the City of Milwaukee's Comon Council for three years, and is with the Hunger Task Force of Milwaukee currently the agency's Director of Advocacy.

Review of Literature on Hunger and Undernutrition

The importance of adequate nutrition and its link to childhood development has been increasingly researched and documented over the past six decades. What follows is a summary of the major research conducted on childhood hunger and nutrition. Several studies released in the last 10 years revealed some startling statistics.

CCHIP Study

Released in 1991 by the Food Research and Action Center (FRAC), the Community Childhood Hunger Identification Project (CCHIP) study was the most rigorous and comprehensive study of childhood hunger ever conducted in the United States. Among the key findings of the study were:

- An estimated 5.5 million children (or about one out of every eight children) under the age of 12 are hungry in the U.S.
- An estimated 11.5 million children (or about one out of every four children) under the age of 12 are hungry or at risk of hunger.
- Hungry children are two to three times more likely than children from non-hungry low-income families to have suffered from individual health problems such as unwanted weight loss, fatigue, irritability, headaches, and inability to concentrate in the six-month period prior to the survey.
- Children who report a specific health problem are absent from school almost twice as many days than those not reporting specific health problems.

In total, the CCHIP's study indicated that about 12% of all families with children under the age of 12 in the U.S. experience hunger. In addition, 28% of all families with children under 12 in the U.S. were estimated to be hungry or at-risk of hunger.

In 1995, FRAC released its second national CCHIP study. This research found that about 4 million children under the age of 12 are hungry in the U.S. It also found that an additional 9 million children are at-risk of hunger. In Wisconsin, the study found that about 69,000 of Wisconsin's children under the age of 12 were hungry (or about 7.8% of the state's under-12 population). In addition, the study estimated that about 253,000 of the state's "12-and-under" population was at-risk of hunger.

USDA's Food Security Study

In 1997, the U.S. Department of Agriculture released a hunger and food security study based on interviews with about 45,000 American households. ("Food security" was defined as "access by all people at all times to enough food for an active, healthy life.") The data from the study resulted from a questionnaire developed jointly by the U.S. Census Bureau, USDA's Food and Consumer Services, and the Centers for Disease Control's National Center on Health Statistics.

- 11.9% of American households (or about 12 million households in total) were considered "food insecure."

- An estimated 6.1% of households with children suffer either severe or moderate hunger.
- About 4.2 million American households were estimated to have experienced reduced food intake and hunger from April 1994 to April 1995.
- About 800,000 households were estimated to have experienced severe hunger during this time period.

Klienman Study on Childhood Hunger

In January, 1998, a study entitled "Hunger in Children in the United States: Potential Behavioral and Emotional Correlates" was published in the *Journal of Pediatrics.* The study examined the relationship between hunger as defined by the CCHIP measure (food insufficiency attributable to constrained resources) and variables reflecting the psychosocial functioning of low-income, school-aged children. The study group included 328 parents and children from a CCHIP study of families with at least one child under the age of 12.

The study found that children from families who report multiple experiences of food insufficiency and hunger are more likely to show behavioral, emotional, and academic problems than children from the same low-income communities whose families do not report experiences of hunger.

- Hungry children were 7 to 12 times more likely to exhibit symptoms of conduct disorder than not-hungry children.
- 17% of the households interviewed were classified as hungry, and
- 34% were classified as not hungry.

NHANES III Study

In March of 1998, four researchers published a study in the *American Journal of Health* entitled "Food Insufficiency Exists in the United States: Results from the Third National Health and Nutrition Examination Survey (NHANES III)." They identified households as "food insufficient" if a family reported that the family sometimes or often did not have enough food to eat.

- From 1988 to 1994, the overall prevalence of food insufficiency in the U.S. was 4.1%, or about 9 to 12 million Americans.
- Among low-income families, food insufficiency was positively correlated with:
- being Mexican American,
- being under the age of 60,
- having a family head who had not completed high school,
- participating in the Food Stamp Program,
- and not having health insurance.
- Children under the age of 17 had cut the size of meals or skipped meals in the previous month because of a lack of money.

Tufts University Research

Tufts University's Center on Hunger, Poverty, and Nutrition Policy has done numerous studies on child nutrition and hunger. In 1995, the Center published a comprehensive review of the literature that outlines the link between nutrition and cognitive development in children.

In 1998, the Center released an updated version of its 1995 literature review. The Center indicated that undernutrition during any part of childhood can have detrimental effects on the cognitive development of children and their later productivity as adults. Among the other research findings summarized by Tufts were:

- Poor children who attend school hungry perform significantly below non-hungry low-income peers on standardized tests.
- Undernutrition can permanently retard physical growth, brain development, and cognitive functioning.
- There exists a strong association between family income and the growth and cognitive development of children.
- Supplemental feeding programs (school breakfast, summer food, etc.) can help to offset threats posed to the child's capacity to learn and perform in school which results from inadequate nutrient intake.

The School Breakfast Program

The federal School Breakfast Program (SBP) is one of many important federal child nutrition programs that provide proper nutrition to low-income children. The program significantly contributes to safeguarding cognitive development and insuring good health among school-age children. It is especially beneficial to low and moderate-income children who may not receive adequate nutrition and are more at-risk of impaired cognitive development.

Established in 1966 by Congress, the SBP's goal is to provide nutritious morning meals to school-aged children. The SBP was initially designed to assist low-income families and children who had to travel long distances to attend school, but in 1972 the program was expanded to include all students. The SBP is federally funded through the U.S. Department of Agriculture and administered in the state of Wisconsin by the Department of Public Instruction.

The SBP provides federal funds to schools and residential child care institutions that offer nutritious meals to students. Children from households with incomes between 130% and 185% of the poverty level receive meals at reduced rates; students from households with incomes of 130% of poverty and below receive free

meals. Although the SBP is an entitlement program (meaning federal funds are available to pay its costs), **it is not accessible to many children who need it because most school districts do not offer it.** Nationally, about 72% of schools that offer school lunch also offer school breakfast; in Wisconsin the percentage is about 27%, the worst percentage among all 50 states. In addition, about 40% of low-income children in the U.S. who eat free and reduced-price school lunch also receive free and reduced-price school breakfast; in Wisconsin, the percentage is about 18%, again the worst percentage among all 50 states.

The Meyers, Sampson, et al study

The first major study that demonstrated SBP benefits was released in 1989 by Meyers, Sampson, et al. Their study examined the effect of the SBP on school performance of low-income elementary school children in Lawrence, Massachusetts. The researchers found that children who participated in the SBP had significantly higher standardized achievement test scores than eligible non-participants. Children receiving school breakfast also had significantly reduced absence and tardiness rates.

Minnesota's Universal Free Breakfast Initiative

In 1994, at the direction of the Minnesota Legislature, a universal, free, pilot breakfast program was implemented at the grade-school level by the Minnesota Department of Children, Families, and Learning. The evaluation of the pilot project, completed by The Center for Applied Research and Educational Improvement at the University of Minnesota, showed the following benefits of the breakfast program:

- a 40%-50% decline in discipline referrals;
- declines in morning visits to the school nurse's office for minor headaches and stomachaches;
- general increases in math and reading achievement;
- an infusion of energy and child attentiveness at the start of the school day.

Rhode Island's Universal Free Breakfast Initiative

Another major study of the benefits of school breakfast was conducted by Tufts University's Center on Hunger, Poverty, and Nutrition Policy in 1994. This study involved the evaluation of a universally-free breakfast program demonstration project in Central Falls, Rhode Island. Under the guidelines of this project, school breakfast was made available free of charge to all children in the Central Falls School District. Among the findings of the evaluation of the universally-free school breakfast program (UF-SBP) were:

- The UF-SBP led to significant increases in school breakfast participation.
- The UF-SBP increased participation most among nutritionally vulnerable and impoverished students.
- The UF-SBP led to significantly lower rates of tardiness and absence among participants.
- The UF-SBP led to fewer children entering their classrooms without having eaten any breakfast.
- The breakfasts eaten by children who participated in the SBP were comprised of more nutritious foods, and foods that were lower in fat and sugar content, than breakfast foods eaten by non-participants.
- Nutrient intakes of children in Central Falls schools who participated in the SBP were significantly better than the nutrient intakes of children who do not participate in the SBP.

Wisconsin's Good Breakfast for Good Learning Campaign (GBFGL)

The GBFGL campaign was initiated in 1996 by the Maternal and Child Health Education and Training Institute and other organizations that were interested in increasing awareness of the link between school breakfast and classroom learning. Part of the campaign involves presentations to schools and community organizations by GBFGL representatives. The presentations are supplemented by a variety of informational brochures, packets, and handouts that outline the various benefits of school breakfast. To date, GBFGL representatives have conducted 84 breakfast orientations for schools and community groups. Approximately 5,000 individuals have participated in the presentations since 1996. Among the public awareness materials that the GBFGL campaign distributes are:

- A GBFGL handbook which outlines how to start or expand a School Breakfast Program in Wisconsin.
- A GBFGL informational kit that includes various flyers, brochures, and handouts summarizing the health, nutrition, and social benefits of a breakfast program.
- A GBFGL "Breakfast Assessment" packet which allows a school's students, parents and teachers to assess breakfast consumption behavior as well as the impact of breakfast on the classroom.
- A variety of materials with the GBFGL logo, including pencils, rulers, erasers, banners, and posters (a poster entitled "Breakfast and Learning – Are They Connected?" as well as a consumer handout entitled, "Smart Families Eat Breakfast" are both available for physicians' offices at no charge).
- Radio and TV public service

announcements that can be used by local media outlets to promote school breakfast programming.

The GBFGL campaign has contributed to a significant increase in the number of Wisconsin schools participating in the School Breakfast Program. In 1996, Wisconsin had 595 schools participating in the SBP; in 1997, the total number increased to 650 schools. Wisconsin is expected to have 763 schools participate in the SBP in 1998. Although Wisconsin still ranks last among all states in terms of school breakfast participation, the GBFGL campaign has helped the state rank in the top ten in each of the past three years in terms of breakfast programs started.

The GBFGL sponsors are currently in the process of collecting and analyzing thousands of breakfast assessments completed by teachers and students from schools in Wisconsin. The overall goal of the assessments is to evaluate how students' breakfast behaviors impact on their readiness to learn at the start of the school day. Among the questions asked of students are:

- where breakfast was eaten,
- what types of foods the breakfast included,
- and what time was breakfast eaten.

School children's parents are also asked questions such as, "Do your children always eat breakfast before school starts?" "What time do your school-aged children eat breakfast?" and "What do your school-aged children generally eat for breakfast?" In addition, teachers are also asked to assess students' morning eating behaviors to determine if students are starting each day alert and ready to learn. Analysis of these assessments will provide a comprehensive look into how breakfast programs have impacted specific schools. The results of the assessments should be available by November,1998. For more information about the Good Breakfast for Good Learning campaign, please contact Mardelle Wuerger, Director, Maternal and Child Health Education and Training Institute, at (608) 265-3730 or at mwuerger@facstaff.wisc.edu. Breakfast posters and flyers are being distributed through the Wisconsin Division of Health and can be obtained by calling Jayne McCredie at (608) 266-0220. To obtain school breakfast handbooks and "Good Breakfast for Good Learning" folders, contact Jon Janowski, Director of Advocacy, Hunger Task Force of Milwaukee, at (414) 962-3111 or at jon@hungertaskforce.org.

Wrestling the Scale Not the Opponent

by Ron Harms, MD

Dangerous Weight-Loss Practices

The dangerous and unhealthy weight loss practices in high school and college wrestling are still with us.

The deaths of three college wrestlers (one at the University of Wisconsin-La Crosse) this year reveal the ultimate dangers of unhealthy weight loss practices. These unfortunate and avoidable deaths have refocused attention on the problem of a significant number of wrestlers and coaches wrestling the scale more than their opponent.

Anyone who believes starvation, fluid deprivation, prolonged exercise, rubber suits, saunas, vomiting, laxatives and diet pills can be justified as healthy choices for our Wisconsin high school wrestlers is doing our children an injustice. Unfortunately, a culture still exists in some of our wrestling communities that supports and even promotes these unhealthy weight loss practices.

The acceptance and even promotion of these unhealthy weight loss practices by some of our high school wrestlers is not only dangerous, but also reveals a double standard for such practices. If a female high school student was found vomiting, starving, using laxatives, or unable to concentrate in a classroom, wouldn't we think it a tragedy, dangerous, or neglect if the school personnel did not get her professional help?

Ron Harms, MD, Family Physician, Medical Director, Shawano Clinic, Clinical Director, United Health Group, WIAA Sports Medicine Advisory Committee

If anyone believes only a few wrestlers are affected by unhealthy weight loss practices, consider these facts:

1. There are over 10,700 high school wrestlers in the state of Wisconsin. Studies show that 1/3, approximately 3,560 wrestlers, use undesirable weight loss practices in the state of Wisconsin.
2. Weigh-in data in 1989 within 10 days following the Wisconsin State Wrestling Tournament, measuring the weights of 2,460 wrestlers showed the average weight gain for all wrestling classes was nine-pounds per wrestler. The maximum weight gains were 24-pounds for the 103-pound weight class, 26-pounds for the 112-pound weight class and 31-pounds for the 145-pound weight class.
3. Approximately 40% of high school wrestlers, 4,280 Wisconsin high school wrestlers, report binge eating.

As a member of the SMS, WIAA Physicians Advisory Committee and a family physician interested and involved in high school sports medicine for many years, I have had many experiences concerning unhealthy weight loss practices. In 1988, it became apparent to me that one of the major reasons for unhealthy weight loss practices was that the health care community had not provided an organized approach that could be delivered to each high school wrestler to predict a healthy minimal weight for these high school athletes along with an effective nutrition education program. At that time, I proposed a program that would predict a healthy, normal minimal weight and a standardized nutrition education program. Three key elements became available in 1988 that allowed implementation of a statewide program for the approximately 360 high schools in the state of Wisconsin. First, the accurate formula to predict a percent body fat for high school wrestlers became available. Second, the explosive growth of sports medicine in clinics serving approximately 50% of the Wisconsin high schools. Third, the availability of athletic trainers, who had the expertise to determine accurate percent body fat, to staff these new sports medicine clinics.

At the December 1988 WIAA Physician Advisory Committee meeting, the committee voted unanimously to advise implementation of a statewide program for minimal weight prediction for all WIAA wrestlers. The WIAA Board of Control endorsed the Wisconsin Minimal Weight Program (WMWP) in 1989 making Wisconsin the first state to have a mandatory minimal weight program for high school wrestlers. From the beginning, the WMWP has developed and promoted equally an accurate determination of a minimal weight based on percent body fat and a nutritional education program. The WMWP is better known as the "7% Rule" in high school wrestling because 7% is the minimal percent body fat allowed for all male high school wrestlers (12% body fat for female wrestlers). The WMWP has become a model program for other states with Michigan, New York, and Connecticut having followed with mandatory programs to

direct weight loss over the last nine years. Recently, officials from the CDC involved in an investigation of and research on the deaths of the three college wrestlers have identified the WMWP as a pioneer and model program for other states in developing and instituting a healthy minimal weight program for high school wrestlers.

The WMWP has been a work in progress since 1988 and has been successful secondary to the guidance provided by a committee of wrestling coaches, athletic directors, WIAA administrators, exercise physiologists, dietitians, athletic trainers, and physicians.

The WMWP has made major strides to promote wrestling as a safe sport for all participants. However, much is left to be done. A 1988 WIAA study showed evidence of the need to continue to work to make wrestling a safer sport revealed in a study conducted by the WIAA with an unannounced re-weighing of high school wrestlers within days of a healthy minimal weight by skin fold measurements. Seven hundred and ten wrestlers were re-weighed within several days following the initial assessment and 22% had gained more than three-pounds with the maximum weight gain of 18-pounds. One high school wrestling program had over 1/3 of their wrestlers gain greater than 6-pounds in a few days. Projections from this study reveal approximately 2,400 wrestlers in the state of Wisconsin dehydrated and/or starved themselves to attempt to obtain a lower minimal weight for wrestling.

The WMWP is trying to take the Minimal Weight Prediction Project for high school wrestlers to another level. The Project Steering Committee unanimously decided in April of 1998 to require urine specific gravity determination on all wrestlers prior to skin fold measurements for the 1998-99 season to help protect against unhealthy dehydration by wrestlers in order to try and obtain a lower minimal wrestling weight. As health care professionals, I would ask for your support for Wisconsin Minimal Weight Project to help ensure Wisconsin high school wrestlers have the safest and healthiest environment possible to compete in the sport. As health care professionals, we need to have zero tolerance for the culture that promotes unhealthy weight loss practices.

If anyone has any questions or would like to become involved n the project, please feel free to contact me at Ron Harms, phone (715) 526-9021; e-mail: rlharms@mail.wisnet.net.

Tracking and Improving Children's Health

by Marc Kennedy, Special to the WMJ

The Marshfield Clinic and its affiliates are focusing on a variety of programs and studies designed to identify and reduce the incidence of infectious diseases in children.

One program is an on-going effort to immunize children earlier and guarantee accurate record-keeping — the Regional Early Childhood Immunization Network (RECIN). RECIN is a confidential electronic medical immunization registry that clinicians can use to instantly identify whether a particular child is up-to-date on his or her shots.

"Everyone would like vaccination rates to be higher," said Edward Belongia, MD, infectious disease epidemiologist at the Marshfield Medical Research Foundation.

"With this system, everybody has access to immunization data on kids. Before, we had a fragmented data system; nobody had a clear picture. If records are not up-to-date and complete, there may be missed opportunities for vaccinations. This system enables all providers to access a computerized registry to provide accurate information. This is a real issue — as vaccines become more complex, it is harder for parents to keep track, especially if they have used a variety of health care providers."

RECIN covers the 38 affiliated Marshfield medical care centers as well as Memorial Medical Center in Neillsville, and Rusk, Sawyer and Clark counties.

"It is a wonderful system, a dream come true," said pediatrician Ellen E. Schumann, MD, with the Wausau Medical Center. "Our goal is to make sure all kids are immunized by the time they are two years old. This system will help make sure this gets done when they are two rather than catching up at age five when they enter school."

The RECIN computerized system means that parents will no longer have to struggle to keep track of vaccinations, especially when more than one child and more than one health care provider are involved.

The RECIN computerized system means that parents will no longer have to struggle to keep track of vaccinations, especially when more than one child and more than one health care provider are involved. This can lead to missed or repeated immunizations, according to Edna O. DeVries, MD, a Marshfield Clinic pediatrician.

"I'm really excited about building this network," said DeVries, "so we have accurate information to get these kids immunized and protected from some of these horrible diseases."

As well as keeping better tabs on whether children are up to date on inoculations, the RECIN system has an additional benefit. It reduces staff time required to track down records.

Reducing Antibiotic Use

"Another issue we are investigating is to see if we can reduce the use of antibiotics in children," said Belongia. "We are in the second year of a Centers for Disease Control-funded study involving 700 children in Price, Rusk and Lincoln counties to promote more judicious use of antibiotics. We did the intervention last fall, now we are measuring impact.

Measuring Enteric Disease

Belongia added that Marshfield is also studying the prevalence of enteric pathogens in children on farms.

"By measuring the antibodies to enteric diseases such as Campylobacter, e coli and cryptosporidium," he said. "If we find these antibodies, we can identify if children had earlier exposure to these diseases, often carried by livestock. One of the questions we are trying to answer is whether they have more illness, such as diarrhea, or whether they developed immunity early on."

What's the Matter with Kids Today?

by Marc Kennedy, Special to WMJ

Why can't they be like we were, perfect in every way, what's the matter with kids today?
[Lyrics from "Bye Bye Birdie"]

According to statistics from various sources, violence toward, by and among children and adolescents in the United States has increased dramatically in the past ten years or so (see sidebar).

A number of Wisconsin physicians — psychiatrists, family physicians and pediatricians, among others — have a variety of informed opinions about the nature of this intensification of youth violence. And, many suggest and champion innovative ways of mitigating the causes of anti-social and pathological behavior of youth that seems to leap off the newspaper and magazine pages almost daily.

Identifying the Problems

While precise causes in each case naturally vary, certain key social indicators link this increase in youth crime, violence and anti-social behavior, according to Wisconsin physicians who are addressing these issues. These factors include parental abuse and neglect in the early states of a child's mental, emotional and social development. This inappropriate parenting may be due to stress, ignorance, alcohol or drug abuse, or may be learned from their own dysfunctional parents or primary caregivers.

"Few parents want to hurt their children," said Grace Heitsch, MD, FAAP, a pediatrician from the Duluth Clinic-Ashland. "But many lack proper parental skills. They are at-risk parents, who are likely to do the wrong things without knowing better, mainly because they either haven't learned appropriate parenting skills from their parents or guardians or are stressed out, depressed and confused for a variety of reasons. In some cases, they are teenagers who are not prepared for parenthood."

Children who do not bond appropriately with their parents or significant person early in life do not develop normally, explained Heitsch, which can affect how they deal with stress and fear later in life. Therefore, she said, it is imperative to identify at-risk parents and help them learn to properly bond with their offspring.

It is imperative to identify at-risk parents and help them learn to properly bond with their offspring.

"One theory of child development says that between six- to nine-months a baby develops a bond with a primary caregiver who they understand will meet their needs," said Heitsch. If a child cannot form this type of attachment, then societal norms become irrelevant, she said.

Lack of Moral Development

There is something else these children seem to lack, according to Clarence Chou, MD, a psychiatrist at the Child-Adolescent Treatment Center in Wauwatosa.

"Moral development occurs between the ages of four and six," he said. "Some kids do not develop it; they don't internalize it. They just are responsive to their environment, to either the control of the law or someone with a bigger gun."

These are the children who do not have a strong, consistent parental influence or mentor in their lives; someone with whom to bond, to form a relationship with that helps set priorities, boundaries and appropriate behavior.

Without appropriate guidance, many kids get lost, he added. "They don't attend school, they smoke marijuana or drink alcohol and live moment to moment, with little focus on anything but the present."

For them, the future is too far away to care about. "There is a real disconnection," said Chou, who views the missing moral element as one of the primary reasons behind the increase in youth violence. And in a vast majority of the cases, it is a component that is absent not due to an inherent malformation of the children — it is attributed to the parents or caregivers, either directly through outright abuse, or indirectly through neglect or indifference.

Identifying Kids At Risk

Some children have moderate or severe mental disorders that affect their behavior, said Chou, and some are out and out paranoid. Some kids are clinically troubled with depression or schizophrenia; some professionals have reported an under-diagnosis of what some

clinicians call 'adolescent mania' due to a bipolar condition.

"But such children are not morally bankrupt, they are impaired," he said.

"Children use adults as role models, whether or not the image is positive or negative," he added.

"They still see abusive parents as often the only possible role model to connect with, even though the parents are inherently bad. It is disappointing and sad that kids can't make progress unless parents come around. If parents don't address their own problems, such as alcohol and drug abuse, it is likely that the same behavior will continue among progeny. In those cases, the apple doesn't fall very far from the tree."

The same applies to parenting skills, or lack thereof, that are passed from one dysfunctional generation to the next.

"In the 1980s, child abuse referrals went up by thousands, to about 10,000 per year in this state," said Chou. 'They continue to rise slightly each year; last year it was between 11,000–12,000."

Twenty percent of the newborns in Wisconsin each year — 13,500 babies — are born to parents at risk of abusing or neglecting them, according to the Wisconsin Committee to Prevent Child Abuse and Neglect.

Trauma of a violent upbringing leaves scars that remain for years, added Bernard Micke, MD, family physician at UW Health Physicians Plus in Madison.

"People with violence in their background don't have good relations in their family," said Micke. "Abuse leaves a legacy even if children don't perpetuate it as adults on their own kids."

The bad news is that by the time the children who are neglected or abused reach middle school, it is costly and time consuming to significantly rectify the damage, Chou said. The good news is that programs aimed at early intervention through counseling at-risk families show remarkable promise.

> *"But such children are not morally bankrupt, they are impaired."*
>
> *Clarence Chou, MD*

Kids Raised in Chaos

"If [parents] lose that chance for early bonding with the child, learning problems can occur later. The same can happen if children are raised in chaos. They spend their energy surviving, rather than developing mentally. Eventually, as they grow older, such kids find it more difficult to react appropriately to stimuli than kids raised in nurturing environments…[and] formed their cerebral connections properly."

Heitsch is referring to work done on infant brain development by Bruce Perry MD at the Baylor College of Medicine in Houston.

Although this ability of the brain to adapt to what it perceives as constant threats may help the child avoid future harm (e.g., a battered child may learn to keep out of his father's way when the father is in a bad mood) it exacts a great cost. Children exposed to severe stress frequently develop learning disabilities and emotional and behavioral problems (e.g., attention deficits, anxiety, depression) and appear to be at risk for a host of medical problems, such as asthma, immune-system dysfunction, and heart disease. It is important that we not assume that a poorly parented or traumatized child is incapable of healthy functioning later in childhood or adolescence.

Research on the developing brain suggests continuing opportunity for change into adulthood and provides no evidence that there is some age beyond which intervention will fail to make a difference. In fact, this research provides exciting new clues as to what kinds of therapy might be most helpful for children who have experienced difficult lives.

Clearly, however, the costs (in human suffering, loss of potential, and real money) of trying to repair, remediate, or heal these children is far greater than the costs of preventing these problems by promoting healthy development of the brain during the first few years of life."

What Can Physicians Do?

Concerning violence in the popular media, doctors can have an impact, albeit indirectly.

"We live in a democracy, so censorship is not a viable option," said Micke. "It should be up to the marketplace to police itself. But parental input is very important to help children recognize the difference between fantasy and reality. Physicians have a responsibility to talk to parents about what their children are watching, and the potential impact it can have on them."

He added that doctors also have a role in intervention in cases of violent behavior within the family.

"We need to pay more attention to victims of violence, particularly spouses and children," Micke said. "We need to educate ourselves and our colleagues in identifying potential abusers. The sticky thing is what do you do once you identify them? How do you bring it up to the abuser? What can you do that is effective in helping change behavior?"

Micke said that physicians can use their influence in making a difference with patients who are violent or abusive.

"Doctors have a reasonable amount of authority to make an intervention regarding the health of their patients. For example, getting them to quit smoking. We can take the same approach with making sure of gun safety; not keeping guns in the home, or keeping them locked up separately from ammunition."

The same approach can work for violent behavior as well.

Wasted Youth

Statistics reveal a dramatic increase in violence by, among and toward American adolescents and children.

The juvenile arrest rate in Wisconsin has risen steadily between 1986-1995, according to a Wisconsin Statistical Analysis Center study. The percentage of arrests among juveniles in the state for "Index Offenses" (as indicated by the FBI Uniform Crime Index, including rape, homicide, robbery, aggravated assault, larceny, burglary, auto theft and arson) increased 22.5% during this period, while arrests for violent offenses increased 79.5%.

While most students are not worried about violence in school, about 45% said they "usually" feel safe, according to a 1997 Department of Public Instruction survey of Wisconsin schools. One-third reported being involved in a physical fight at least once during the past year and 4% said they were treated by a doctor or nurse following an altercation.

"There were significant relationships between fighting weapons, and feelings of safety," the DPI report said. "Students who said they always felt safe at school were less likely to have been involved in any fights in the past 12 months than students who "usually" felt safe or students who "didn't feel safe" at school. Similarly, students who "always" or "usually" felt safe were less likely to have carried a weapon in the past 30 days."

About 15% of students reported carrying a gun, knife or club in the past 30 days. The good news is that the percentage of students holding weapons dropped from 19% in the 1993 survey.

From 1950-1993, the overall annual death rate for U.S. children 15 and under dropped substantially, according to the Centers for Disease Control. This reflected fewer deaths due to unintentional injuries, pneumonia, influenza, cancer, and hereditary anomalies. However, in the same time frame, childhood homicides tripled, and suicides quadrupled. In 1994, homicide was the fourth leading cause of death among children 1-4 years old; among children aged 5-14 years, homicide was the third leading cause of death, and suicide was the sixth.

A 1997 CDC report comparing the U.S. to 25 other industrialized countries indicated that the United States had the highest rates of childhood homicide, suicide and firearm-related death rates. Some of the key findings:

- The rate for firearm-related deaths among American children (1.66 per 100,000) was 2.7 times greater than Finland, the country with the next highest rate (0.62).
- The homicide rate for U.S. children was five times higher than that for children in the other 25 countries combined; (2.57 per 100,000 compared with 0.51).
- The overall firearm-related death rate among U.S. children aged 15 years and under was nearly 12 times higher than among children in the other 25 countries combined (1.66 compared with 0.14).
- The suicide rate for U.S. children in the United States was twice that in the other 25 countries combined (0.55 to 0.27).
- A firearm was reported to have been involved in the deaths of 1107 children; 957 (86%) of those occurred in the United States.
- Of all firearm-related deaths, 55% were reported as homicides; 20%, as suicides; 22%, as unintentional; and 3%, as intention undetermined.
- The U.S. firearm-related homicide rate was nearly 16 times higher than that in all of the other countries combined (0.94 compared with 0.06); the firearm-related suicide rate was nearly 11 times higher (0.32 compared with 0.03); and the unintentional firearm-related death rate was nine times higher.

"We can look at what's causing it, what is driving the violent behavior in the home," said Micke, "and more importantly, what can we do — as parents, as mentors, as neighbors, and as physicians — to prevent it?

"There are encouraging programs in some state schools helping children who have difficulties controlling their behavior," said Micke.

"These programs involve peer mediation, conflict resolution and anger management."

The state Department of Public Instruction (DPI) is working to create community partnerships with physicians, who would volunteer to help at-risk children in schools.

Throughout the 12 CESA groups (Comprehensive Educational Service Agencies). DPI is already helping organize statewide alcohol and tobacco prevention education through these agencies.

"We use CESAs because they are closer to the schools and focus on local partnerships," said the DPI's Steve Fernan. "Many have expanded the scope, and are taking on violence prevention as an issue."

Micke said that physicians should be considering violence as a public health and medical issue that affects their patients as well as society in general. And, as with any other medical issue, Micke said that preventing an illness from occurring is much healthier and cost effective.

"We spend a lot of money on jails, and not enough on prevention of violence that puts people there."

EVP Report — Continued from p. 5

abuse, promoting use of safety belts, and increasing immunizations, to name a few.

Professionalism

- Fostering professionalism through the Center for Medical Practice Research and Education. The Center offers a non-competitive and secure home for practice improvement research and discourse on best practices without regard to health system affiliation. Projects include asthma, low back pain, acute myocardial infarction, prostate cancer and diabetes.
- Educating you and your clinic staff on a variety of issues including coding, practice management issues, offering consulting services including medical chart review.

Community

- Working on community health projects including distributing bike helmets, disseminating diabetes information, and promoting anti-smoking programs in schools.
- Providing patient education materials for a wide variety of issues including domestic violence, training video, reading to children, managed care information, Healthy Start information, living compatibly with dogs.

SMS staff is also available to answer myriad questions, such as...

• What code should we use for ____? • Does Medicaid cover this service? • How can we get paid for ____? • We're thinking about buying (or upgrading) a new practice management system for our office and don't know where to start. • I want to buy a PC for home that the family can use but I also want to access my practice computer system. Do you have any recommendations? • Why isn't the carrier paying our charges? • I have a (friend/son/daughter) who is interested in entering the computer field (or just graduating from college) and I was wondering if you could answer a few questions that might help them? • How many credits do MDs need for licensure in the state of Wisconsin? • When the CME surveyors come, what do they do and whom do they want to see? How long will a survey last and will it be disruptive? Who will do my survey? • What are the Medicare policies about payment for _____? • When can you release records without patient consent? • Is this subpoena valid? • Can you give professional courtesy discounts? • What are the legal concerns when treating minors (especially in pregnancy)? • Why should I give to the PAC or the conduit? • Why did the Legislature pass that law? • Why is Medicare denying our charge? • Am I in a Health Professional Shortage Area (HPSA)?

Information Bank

One of the greatest benefits of membership is the information readily available to you, the physician both professionally and personally. Information is a non-tangible benefit of membership, but one of our main jobs as an association. From researching health policy to helping you with coding issues to answering your legal concerns—SMS staff is available to do the legwork and find the answers for you. If you haven't been taking advantage of this service, I would encourage you to do so.

If you have any questions or concerns about your membership, please feel free to contact **Maureen O'Brien at (800) 362-9080 or by e-mail at: MAUEEENO@ smswi.org.**

Teen Anti-Smoking Essay Contest a Success for RPS and Students

Five of the anti-Smoking Essay contest winners with Drs. Armstrong (L) and Rainey (R).

The SMS Resident Physician Section (RPS) recently sponsored a contest to help combat teenage smoking. The Section's *Why Smoking is Not for Me*, statewide essay contest for sixth through eighth graders, received more than 700 entries.

The winning entry, from Jenni Soderbeck of Granstburg, was forwarded to a national competition sponsored by the AMA. Charles J. Rainey, MD, JD, Chair of the AMA-Resident Physician Section, and Michael J. Armstrong, MD, then Resident Physician Director of the SMS Board, presented 10 students with awards including the first place award of $100 Savings Bond and $50 Savings Bonds for each of the nine runners-up.

Smoking is Not for Me!

by Jenni Soderbeck

I'm going to die, feel free to listen, I'll tell you why. I chose to smoke, I'm such a dope. There's no turning back now. I'm on the path of pain and suffering. The big DEAD END! At first, I thought smoking was cool, but then I realized it just made me look like a fool. Fifteen, such a young age to say good-bye, yet I guess I asked for it.

First only trying one cigarette. Then one turned into five, then 10. There I was, addicted. So easy, so fast. I almost feel helpless. In sixth grade, I graduated from D.A.R.E. Our class promised we wouldn't do it, we wouldn't try. I remember thinking about all the bad consequences. Lung cancer, the bad smell, the yellow teeth.

One and a half million teenagers die each year just from smoking. Now I am going to be one of them. I wish teens like me would see that one – just one – try and they could be headed down Death Alley.

"2% by 2000' — Continued from p. 19

Wisconsin. We have the know-how. All that is needed now is a comparatively small investment. Two percent of the $1.3 billion we will spend to *punish* crime will go far to *prevent* crime.

With the enactment of the *Truth in Sentencing Act*, we now enter the next phase of insuring that the legislative intent to commit new money to prevent child neglect and abuse is carried out. Because the Governor has directed an initial 0% increase in the next biennium budget, we are concerned that the Secretary of Health and Family Services will be placed in the position of only being able to transfer money from existing prevention programs or counting existing programs as fulfilling the intent of the Act.

We need to act to insure that new money is committed to the primary, as distinguished from the secondary and tertiary, prevention of child neglect and abuse by providing all families access to individual, group, and home-based resources prior to and at the time of childbirth in order to prevent child neglect and abuse from occurring.

Physicians are in a key position to insure that parents have a chance to do as well as they can in raising their children. By promoting family support networks in our communities and at the state level, we can help give every Wisconsin newborn a chance to become a productive member of society.

More information is available from:

- Wisconsin Cares, Jack C. Westman, MD, President, (608) 238-0858
- Wisconsin Committee to Prevent Child Abuse, Sally Casper, Executive Director, (608) 256-3374
- Wisconsin Children's Trust Fund, Nadine Schwab, Executive Director, (608) 266-6871

School Age Children — Continued from p. 21

Programs, the Wisconsin Chapter of the American Academy of Pediatrics, School Health Committee (608-222-7751) and the State Medical Society of Wisconsin, Maternal & Child Health Commission for more information or involvement in state level activities.

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WMJ
WISCONSIN MEDICAL JOURNAL

Advances in the Care of Children with Heart Disease

Raymond T. Fedderly, MD; Stuart Berger, MD; Peter C. Frommelt, MD; David A. Lewis, MD; Anwer Dhala, MD; Andrew N. Pelech, MD; Michele A. Frommelt, MD; David Z. Friedberg, MD; John P. Thomas, Jr., MD; James S. Tweddell, MD; and S. Bert Litwin, MD

INTRODUCTION

Care for children with congenital, as well as acquired, heart diseases has changed dramatically over the last decade. The significant improvement in both morbidity and mortality of children with heart disease has been the result of the cooperative, multidisciplinary approach to the care of these children. The providers of this care include pediatricians, family practitioners, pediatric cardiologists, intensivists, pediatric cardiothoracic surgeons, anesthesiologists, and nurses. The purpose of this article is to review the 1997 statistics of the pediatric cardiology and cardiovascular surgical programs at the Children's Hospital of Wisconsin (CHW) and to highlight some of the recent advances in pediatric cardiology and cardiovascular surgery that have contributed to the marked improvement in outcome for children with heart disease. Evolution in the areas of echocardiography, cardiac catheterization, cardiac electrophysiology, cardiac surgery and cardiac transplantation, has been instrumental in the improvement in outcomes over the last decade.

ECHOCARDIOGRAPHY

During 1997, 4,004 echocardiographic studies were done at CHW. Of these, 3,757 were transthoracic echocardiograms; 2,494 (66%) were done in an outpatient setting, and 1,263 (34%) on patients admitted to the hospital. Fetal echocardiography was performed in 28 mothers. Transesophageal echocardiograms were done on 219 patients.

a. **Transthoracic echocardiography** - The mainstay of definitive diagnosis in pediatric cardiac care is the echocardiogram, which combines two-dimensional, Doppler and color-flow imaging. This modality enables diagnosis of both structural and hemodynamic abnormalities in the infant or child. It is increasingly uncommon for a neonate to require a diagnostic cardiac catheterization for a specific anatomic diagnosis, and the vast majority of infants at our institution undergo operative intervention based solely upon echocardiographic data.

b. **Fetal echocardiography**- Screening for congenital heart disease is an important part of fetal ultrasonography. Specific fetal echocardiography is performed on mothers identified as having an increased fetal risk because of the clinical or family history, as well as an initial recognition of cardiac or associated fetal anomalies during the obstetric ultrasound evaluation. In Milwaukee, a close working relationship has been established between the high-risk obstetric practice groups and our division of fetal echocardiography. This has resulted in reliable early diagnostic information for the referring physician and for affected families, and enables strategic planning, psychosocial support, and operative plans to be in position to ensure proper pre- and post natal care.

c. **Transesophageal echocardiography** - This technique allows for alternative high-quality cardiac imaging when transthoracic imaging is suboptimal, as in the operating suite. Transesophageal echocardiography (TEE) has proven to be an invaluable intraoperative

Drs. Fedderly, Berger, Frommelt, Lewis, Dhala, Pelech, Frommelt, Friedberg and Thomas are associated with the Department of Pediatric Cardiology and Drs. Tweddell and Litwin are associated with the Department of Surgery, Cardiovascular Surgery, all at the Medical College of Wisconsin, Children's Hospital of Wisconsin, Milwaukee. Reprint requests to: Dr. Raymond T. Fedderly, Dept. of Pediatric Cardiology, Children's Hospital of Wisconsin, 9000 W. Wisconsin Ave., Milwaukee, WI 53226; Phone (414) 266-2380, Fax (414) 266-2294.

monitor during surgery for congenital heart disease. Intraoperative TEE is performed on the majority of patients with congenital and acquired heart lesions during surgical repair. This has provided immediate intra- and post-operative feedback to the surgeon and anesthesiologist concerning the adequacy of the repair, myocardial function and intracardiac volume status. We have now performed over 700 intra-operative studies and have found that the information provided influences patient management in 10%-29% of cases, depending upon the specific lesion. This has been performed without significant morbidity or mortality related to the technique.

CARDIAC CATHETERIZATION

The use of the cardiac catheterization laboratory has evolved significantly over the past decade. With the advent of two-dimensional echocardiography, the need for diagnostic catheterization has decreased significantly. In recent years, the cardiac catheterization laboratory has become an interventional and therapeutic laboratory. In 1997, we performed 399 cardiac catheterizations, of which 64% were for diagnostic purposes and 36% were for interventional or therapeutic purposes. Interventions have included balloon dilation of valvar pulmonary or aortic stenosis (n = 15) and of recurrent coarctation of the aorta (n = 10), as well as endomyocardial biopsies (n = 33). Newer interventions, including percutaneous balloon angioplasty of the pulmonary arteries and stent placement in the pulmonary arteries, are also performed, enabling rehabilitation of diminutive or obstructed pulmonary arteries.[1]

Additional advancements have developed with the cooperative efforts of the pediatric cardiologists and the cardiothoracic surgeons, including intra-operative placement of pulmonary artery stents and balloon dilation of the pulmonary valve in premature infants using direct surgical access to the affected valve. A further collaborative effort between the cardiologists and the pediatric anesthesiologists has allowed for therapeutic assessment of pulmonary vascular reactivity in patients with variable forms of pulmonary hypertension which may place them at higher risk for surgical repair. This includes the use of inhaled nitric oxide and intravenous prostacyclin, both potent pulmonary vasodilators.

Transcatheter coil embolization of the restrictive patent ductus arteriosus (PDA) has been successfully employed for several years,[2] thereby decreasing the work load of the left ventricle, avoiding surgery and eliminating the risk of endocarditis and the need for endocarditis prophylaxis. In the last three years, we have successfully placed a coil in the PDA in 44 of 46 (96%) patients with a successful complete occlusion rate defined as no residual shunt in 90% of the patients. Comparison of charges for coil occlusion vs. surgery show a significant financial advantage for coil occlusion, as this is primarily an out-patient procedure. In 1997, at CHW, the hospital charges for coil occlusion was 30% those of the surgical procedure. We are currently entering into a phase one trial for the transcatheter occlusion of the larger PDA, but these devices are still in the testing mode. In addition, we are also a component of the prospective evaluation of the Amplatzer ASD occlusion device; this most promising device is currently in the testing mode. We hope to have wide spread availability for use of this device by the end of 1998.

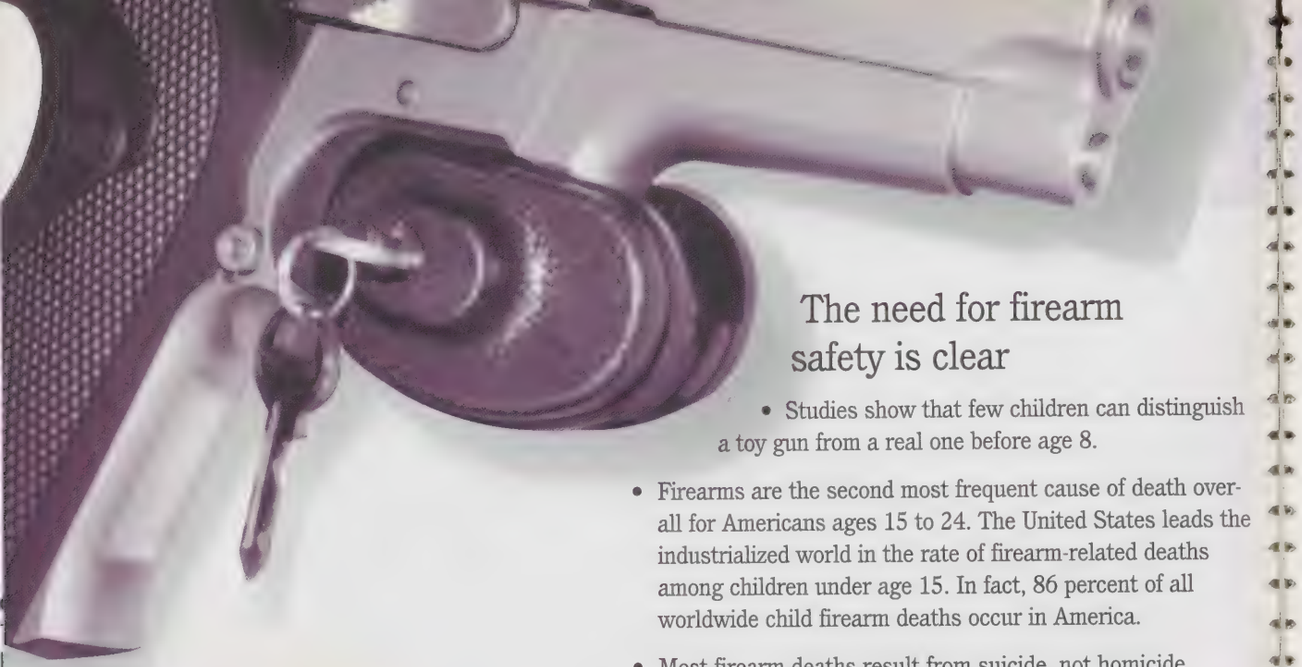
ELECTROPHYSIOLOGY

We are now able to offer children diagnostic and therapeutic electrophysiologic studies with similar success and benefits as for adults; many of the same procedures and principles are applied. Children with tachyarrhythmias have benefitted from invasive electrophysiologic studies, which not only enable diagnostic mapping of either supraventricular or ventricular tachycardias, but also allow ablation of many arrhythmias with radioLrequency (RF) energy. This highly-successful and safe procedure eliminates recurrent tachyarrhythmias, eliminates the need for prolonged drug therapy and, in a select group of patients, eliminates the risk of sudden death. We have performed RF ablation in 103 pediatric patients and implanted seven cardioversion defibrillators (ICD's) since the inception of the electrophysiology program in 1993. Ninety-seven of the 103 patients had supraventricular tachycardia (SVT) and six had ventricular tachycardia (VT). The success rate (i.e., complete elimination of the tachyarrhythmia) has been 94% for SVT and 50% for VT. We have noted no significant complications related to this procedure with the exception of transient AV block in one patient which resolved during the first few months of follow-up. In 1997, 26 patients have undergone RF ablation, 19 have undergone diagnostic evaluations and 10 patients have had permanent pacemakers placed in association with our cardiothoracic surgeons in the catheterization laboratory. In 1997, we have also performed 51 tilt table tests, 136 Holter monitor studies, 133 transtelephonic event recordings, and 146 stress tests.

Protecting our children

CHILD SAFE

report to the community



CHILD SAFE

is a non-profit foundation promoting safety initiatives for Wisconsin children. The foundation was formed in 1994 to reduce the risk of firearm incidents that claim the lives of dozens of Wisconsin children each year. Gunshot wounds take a terrible toll. Imagine the devastating grief felt by parents of a child killed by an unlocked firearm.

CHILD SAFE

The need for firearm safety is clear

- Studies show that few children can distinguish a toy gun from a real one before age 8.
- Firearms are the second most frequent cause of death overall for Americans ages 15 to 24. The United States leads the industrialized world in the rate of firearm-related deaths among children under age 15. In fact, 86 percent of all worldwide child firearm deaths occur in America.
- Most firearm deaths result from suicide, not homicide. The risk of suicide is nearly five times greater in homes with guns.
- One in every four households has a handgun.
- Medical care for patients with firearm-related injuries has been estimated to cost nearly $32,000 per hospital admission. Taxpayers pick up 80 percent of the medical cost for treatment of firearm-related injuries.

A plan for prevention

It is statistics like these that prompted family physician Richard Roberts, then Wisconsin State Medical Society President, to form CHILD SAFE, which works to prevent childhood injuries and deaths in a variety of ways.

CHILD SAFE uses a broad network of physicians who are members of the State Medical Society to educate patients on the dangers of firearms in the home. CHILD SAFE partners with hospitals, clinics, civic organizations, schools, and law enforcement to educate the public about the dangers of unsecured firearms in the home.

HOW SAFE IS YOUR FAMILY?

- **If you have small children, install child-proof latches on cupboards and toilets.**
- **Install smoke and carbon monoxide detectors in your home.**
- **Set your water heater at no more than 120 degrees.**
- **If you have a toddler, use safety gates on stairs and guards on windows that are not emergency exits.**
- **Unload all guns. Secure guns with a trigger lock and put them in a locked cabinet.**
- **Lock and store ammunition separately.**
- **Make sure children don't have access to the keys.**
- **Talk to children about non-violent ways to resolve conflicts and problems.**

Protecting children

Educational initiatives with community groups ensure that safety courses are available for hunters of all ages. Local wilderness advocacy groups and the Department of Natural Resources provide courses that prepare beginning hunters with a lifetime of safe hunting practices.

The cornerstone of CHILD SAFE is the distribution of trigger locks. Just as child resistant caps make common household products safer, trigger locks fit over the trigger of a gun to prevent it from improper use. Thanks to financial and logistical help from Blue Cross & Blue Shield United of Wisconsin, more than 20,000 firearm trigger locks have been distributed free or at reduced cost to safety conscious gun owners since 1994.

The hunting season brings hundreds of thousands of Wisconsin gun owners into the woods. It can also bring unwanted firearm accidents. Through CHILD SAFE and local efforts, thousands of hunters have made trigger locks part of their gear.

Spreading the message

To help spread the message of firearm safety, CHILD SAFE sponsored a series of public service announcements featuring stories of Wisconsin children injured by unsecured firearms. The radio and television announcements were carried on stations throughout the state.

CHILD SAFE

MISSION STATEMENT

CHILD SAFE is dedicated to the prevention of childhood injuries and deaths, particularly due to firearms, through community initiatives and public education.

- **ll passengers in your car need to wear seat elts, especially children.**
- **ildren who bike or skate need to wear helmets. o you wear one yourself?**

CHILD SAFE FOUNDATION BOARD OF DIRECTORS

The message of firearm safety is also being heard by lawmakers, business leaders and parents. CHILD SAFE has even received national recognition for its efforts. U.S. Senator Herb Kohl is a strong advocate for the program. "Children's natural curiosity should not lead to their horrifying deaths," said Kohl. "I applaud this campaign for promoting responsible use of child safety locks that will prevent these terrible tragedies." And in an unprecedented 1997 decision, major American handgun manufacturers voluntarily agreed to include a trigger lock with all new handgun sales.

Doing more

CHILD SAFE isn't only concerned with firearm accidents. Since its creation, the foundation has expanded into a number of child safety education initiatives that focus on preventive safety programs. With just a small amount of "seed money" for local initiatives, CHILD SAFE has made a difference.

One of the most notable new areas of interest by the foundation is in bicycle helmet use. In Wisconsin, CHILD SAFE has helped grass roots organizations spread the word about helmet use and donated thousands of dollars for bike helmet giveaways during 1997. The Ashland-Bayfield County Medical Society, the Waukesha County YMCA, Marshfield Clinic Regional Centers, Clark County Medical Society (CMS), and the Racine CMS/Kiwanis Club are a few of the groups that have benefitted from CHILD SAFE grants for bicycle helmet and safety programs.

Violence prevention

Trigger locks and educational efforts for parents are key components in making the world safer for our children. Teaching personal responsibility and problem resolution skills also help to promote safety. CHILD SAFE has provided financial support for peer mediation training for young people and youth violence prevention events.

CHILD SAFE understands that the power to make our homes and society safer is in our hands. With support from the CHILD SAFE Foundation, guidance from local physicians, and the wisdom of individual parents, we can all make our homes and communities safer places for our children.

To find out what you can do, call the CHILD SAFE Foundation 1(800)762-8970
Or write to:
P.O. Box 1109
Madison, WI 53701

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CARDIAC SURGERY

Outcomes of cardiac surgical care in neonates, infants and children have dramatically improved because of a specialized, multi-disciplinary approach. The trend has been for a relatively larger percentage of children to undergo operative intervention as neonates with fewer palliative procedures and more definitive repairs. In 1997, we performed 603 cardiac operations (350 in patients less than two years old), 280 of which required cardiopulmonary bypass support (open heart or pump cases). This group included a variety of the most complicated intracardiac repairs, including single ventricle variants (N=49), transposition of the great arteries (N=11) and lesions in neonates as small as 1800 grams. The total operative mortality was 0.7%.

We believe that these excellent results are related to our multi-disciplinary approach as well as to new techniques, new medications, and innovations in the pert-operative care of specific cardiac anomalies. Prime examples of this include the care of neonates with hypoplastic left heart syndrome or with transposition of the great arteries.

a. Hypoplastic left heart syndrome

Hypoplastic left heart syndrome is a collection of cardiac anomalies including hypoplasia or atresia of the mitral and aortic valve, hypoplasia of the ascending aorta and transverse aortic arch and a diminutive left ventricle. The repair of this entity has met with limited success at most institutions. In 1992 at CHW, a concerted effort was undertaken to deal with this challenging patient group and improve the surgical outcome. It became apparent that the multi-disciplinary approach, with meticulous management of pre- and post-operative pulmonary and systemic vascular resistance, was critical to the outcome of this population. New pert-operative modalities have been instituted and appear to be important in the successful management of this lesion. These modalities include post-operative modified ultrafiltration to reduce the circulation of vasoactive modulators; the use of aprotinin to reduce perioperative bleeding; intra-operative placement of continuous mixed venous oxygen saturation monitors to facilitate quantification of the cardiac output post-operatively; and the use of intravenous phenoxybenzamine, a potent, long-acting systemic afterload reducing agent.[3,4] The latter two interventions have allowed for "smoother" vasodilation with improved immediate post-operative cardiac output. This approach has resulted in only one operative death in the 24 patients who have undergone the Norwood operation since July of 1996.

We now believe that this difficult lesion can be successfully palliated using the Norwood procedure. We continue to face challenges in this group's management as a 15%-20% mortality remains in this population after discharge. The reasons for this late mortality are not entirely clear, and we are actively developing treatment protocols to improve the long-term prognosis.

b. Transposition of the Great Arteries

Until the late 1980s, the standard approach to transposition of the great arteries was the atrial switch operation done sometime during infancy. This approach allowed one to delay definitive repair during the neonatal period, if possible. It was, however, associated with several months of moderate to severe cyanosis prior to the definitive Mustard or Senning atrial repair. Of greater concern were the long-term complications associated with this approach. These include life-threatening tachyarrhythmias, bradyarrhythmias, and the potential for right (systemic) ventricular failure over the long term.[5,6] World wide experience has demonstrated that a subset of these patients become symptomatic or die suddenly in the second or third decade of life.

The arterial switch operation has solved the above problems by providing anatomic as well as physiologic correction. Switching the great arteries, along with the coronary arteries, has eliminated the need for a complicated atrial repair, with the inherent damage to the sinus node and atrial conduction tissue. In addition, the arterial switch procedure reestablishes the left ventricle as the systemic ventricle, thereby eliminating the risk of congestive heart failure secondary to progressive right ventricular dysfunction. The arterial switch operation has become the operation of choice at CHW for all newborn infants with transposition of the great arteries. In neonates with transposition and intact ventricular septum, we prefer to perform the repair within the first two weeks of life. In neonates with transposition and VSD, the arterial switch operation can be delayed a few weeks but is often best performed in the first month of life. Since 1984, we have performed 108 arterial switch operations with an overall operative mortality of 10%. Of

these 108, 61 had an intact ventricular septum (operative mortality 8%) and 47 had a VSD (operative mortality 13%). In the past five years, we have performed 56 arterial switch operations with an operative mortality of 2 % and a total mortality, including late deaths, of 5%.

CARDIAC TRANSPLANTATION

Cardiac transplantation is an important part of many pediatric cardiology programs, and is no longer experimental. Transplantation is used for patients who do not have another surgical option and who are clinically symptomatic. The largest group who benefits from this therapy are patients with dilated cardiomyopathy who have symptoms of congestive heart failure despite aggressive medical management. A growing population of children who benefit from this therapy are infants with certain forms of congenital heart disease, especially neonates with hypoplastic left heart syndrome. Several centers across the United States other than ours have preferred to approach this lesion with neonatal transplantation.[7] Current data indicate that the results for transplantation in hypoplastic left heart syndrome are quite good. Though a variable percentage of neonates may die before a donor heart is available (15%-25%), the five-year survival for those neonates who get transplants remains in the 80% range. Transplantation is also an accepted mode of therapy for other forms of congenital heart disease for which there is no safe repair, or when there is systemic ventricular dysfunction.

Because transplantation invariably requires long-term immunosuppression, questions remain about long-term results as well as complications. Early ten-year survival data indicate some "drop-off" relative to the five-year survival data.[8] The long-term complications such as infection, post-transplant lymphoproliferative disease and graft atherosclerosis continue to be very concerning occurring with a variable but not minuscule frequency in children.

SUMMARY

As we enter the next millennium, we are encouraged by the progress that has been made in the care of neonates, infants, and children with heart disease. Surgical repair can be offered at an earlier age with excellent results. Diseases that were uniformly fatal in the past have improved outcomes. Research continues in the area of interventional devices such that surgical repair might be eliminated or delayed. We continue to look forward to advances in the next several years that will allow for future improvement in outcome, better quality-of-life and better long-term results.

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Quality-of-Life in Technology-Dependent Children Receiving Home Care, and Their Families – A Qualitative Study

Dennis J. Baumgardner, MD, and E. Diana Burtea, MD

ABSTRACT

Purpose: This qualitative study explored quality-of-life (QL) issues among Wisconsin's technology-dependent children and their families.

Methods: Five semi-structured focus groups were held with parents, siblings and health care workers of home-dwelling children dependent upon technology such as tracheostomy, ventilator support and gastrostomy tube feedings. Focus group transcripts were analyzed using an editing style format, with each author as an independent analyst.

Results: QL for the child was seen as a relative term, defined within the family, dependent upon the availability of services; and expressed in terms of physical comfort and function, and integration of the child into the family and community. Positive QL aspects for families include: growth as individuals, intrinsic rewards from the child and appreciation of others with handicaps. Negative impacts on family QL include: physical and mental anguish (e.g., exhaustion, suicidal ideation, back injuries), inhibitions of normal family functions, and isolation. Home nursing was highly valued despite lack of privacy. A number of ethical issues emerged including ineffective communication and lack of QL discussions during the child's acute treatment, end-of-life decisions, and potential cuts in Medicaid services. The latter issue prompted fear of poverty and divorce among siblings.

Conclusions: Technology appears to exceed the sociological and ethical components of the care of these children, and QL is defined in terms of physical comfort, functional status, adequate services, and family/community integration. Parents assume an ambiguous medical role with their child, and need respite care and advocacy from their health care team.

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INTRODUCTION

There are increasing numbers of technology-dependent children with severe disabilities being cared for in the home,[1,2] including approximately 65 tracheostomy/ ventilator-dependent children in Wisconsin. There is an even larger number of non-ventilator-dependent severely handicapped children receiving other forms of technological support such as gastrostomy tube feedings, dialysis, continuous positive airway pressure and multiple assistive devices. Not only are these children and their families faced with the burden, the out-of-pocket expenses, and the day-to-day challenges of medical care, but face the stress and family disruption which co-exist with the care of a technology-assisted child in the home. There are significant quality-of-life issues for these children, their siblings, parents and other household members. These issues are incompletely defined in the medical literature.

Several articles from earlier years of home care of technology-dependent children[3-9] describe high levels of stress for these families due to the chronically ill child's medical condition, the compromise of family functions, and from the intrusion of strangers into the home when home nursing is utilized. Family support services, frequently funded by Medicaid, have attempted to have a positive effect on families participating in the rearing of the disabled child at home.[5,9] The possibility of diminished services to these children and families, due to reductions in Medicaid funding, remains an issue.

There are also significant ethical considerations regarding these children, including quality-of-life and financial issues. The initial hospitalization and care of these children often exceeds $400,000 per year,[2] and individual cases reach $2,000,000. There are also significant physical burdens placed on these children in order to remain alive.[1,3] This qualitative study seeks to determine how families and health care workers associated with technology-dependent children define quality-of-life, and explore the various ethical considerations regarding the home care of these children.

METHODS

Five confidential, semi-structured, stranger-moderated, focus groups of five-six persons each[10,11] were undertaken between May and September, 1997. There were two focus groups of parents, and one of siblings, of technology-dependent children, and two focus groups of health care workers involved in the care of this population. Only one parent was allowed from each of the represented children. Parents and siblings were recruited, with permission, from a southeastern Wisconsin parent support group for significantly handicapped children, and the health care workers were recruited based on recommendations from the parents in the support group. Open-ended core questions were used to guide the focus groups, with minimal prompting from the moderator as necessary. Core question content included: 1) defining quality-of-life (QL) for the child; 2) QL discussions during initial hospitalization; 3) perceptions regarding QL once the child would go home; 4) current QL for the child and family, and the child's impact; 5) experience with home health care; 6) impact of potential Medicaid cuts; 7) a one-minute question to pose to the child's physician or state policymakers.

Focus groups were audiotaped, then transcribed verbatim by a separate individual having no knowledge of the participants. Confidentiality was maintained by giving each focus group participant a fictitious name to use throughout the discussion. Transcripts were analyzed using an editing style,[12] with each investigator reading a transcript as an independent analyst, highlighting key passages, and developing themes. Investigators then met to reconcile any differences in themes, and to agree upon representative quotes.

RESULTS

Parent subjects included 10 females and one male, with two parent and single parent families represented. Ages of the represented handicapped children ranged from three to 19 years (median=11). Three female and eight male children with a median of nine years of handicap were represented. The number of siblings of these children ranged from zero to six, and the average hours of home health care the children were receiving per day ranged from 0.4 to 20 (median=7). Virtually all represented children were developmentally delayed, 10/11 had a history of gastrostomy feedings, and four had active seizures. Five children had tracheostomies, including three on ventilators, one an anticipated tracheostomy, and another frequent airway suctioning and positive pressure ventilation. Underlying disorders included cerebral palsy, spastic quadriplegia, spina bifida, neuromuscular disorders, meningitis, and rare syndromes.

The sibling focus group included one adult (25 years), and four school-aged (8-13 years) siblings of the aforementioned handicapped children (three females, two males).

The health care worker focus groups included nine female and one male representatives of three separate southeastern Wisconsin perinatal centers. This included three social workers (mean years experience=20, range 17-25), and seven nurses (mean years experience=15, range 6-27; one hospital-based, two home-based, four both).

QUALITY-OF-LIFE

Quality-of-life for the *child* was seen by all three groups (parents, siblings, health care workers) as a relative term that can change, defined within the family, and dependent upon the availability of services. Multiple definitions emerged as two major groups of QL defining themes. The parent and health care worker groups defined QL, in part, in terms of physical comfort and functional status. This included having basic needs met, the absence of suffering and physical discomfort, "happy", the ability to live to his or her full potential, preferably with increasing function, and similarity to normal children. All three groups additionally defined QL of the child in terms of integration into the family and community, including being afforded dignity and respect; having self-esteem; being part of the family; receiving individual attention and sharing love; being at home; and the ability for social interactions with family, peers and community. The most basic definition that emerged in this regard was "the ability for some response to the environment which the family is satisfied with."

Said one parent, "to me, life was more than breathing". Regarding the question of defining QL, another parent offered, "the dignity to be toileted just like everyone else." A health care worker's primary definition was "the ability to give and receive love."

No actual definitions for QL for *families* were offered by any group. Rather, multiple positive and negative impactors on QL for the families, due to the handicapped child and his or her care issues, emerged. QL was seen to vary from family to family and depend upon the specific health status of the handicapped child. The child impacts the QL of all aspects of family life including marriage and relationships, siblings, and growth of the normal family process (family life cycle). QL is more negatively impacted when families see no end to the technological support of the child. Good QL depends upon adequate health services provided to the family.

Items impacting on QL of the family sorted into four main groups: 1) physical and mental anguish including: exhaustion, burnout, feelings of depression (including suicidal ideation), resentment, grieving, and fears (of divorce, disordered aging, no recovery of the child, of the child dying due to parental mistake while personally

providing medical care), back injuries; 2) constraints and inhibitions of normal family functions, growth and activities: loss of mobility and family outings, lack of respite care, loss of privacy and control of one's own household, the handicapped child as the dominant focus of the family; 3) isolation; 4) positive impacts: enhanced tolerance of handicapped persons, personal growth, rewards when the child has increased QL.

One parent commented, "To watch your child suffer year after year is extremely draining." Comments by health care workers included: "There's always this underlying sense there that boils up when things don't go well," and, "There isn't any way that you can have one child that's going to take so much attention of the parents or caregivers in the family without having some impact on the other children."

ETHICAL ISSUES

A number of ethical issues emerged from the parents and health care workers groups. These themes sorted into three major areas: 1) communication issues including feelings of inadequate, ineffective or overly optimistic views of the child's future given to the parents by health care workers, particularly physicians, during the child's acute medical care; insufficient early contact by parents with parents of a similar child; and a belief from the health care workers group that parents may initially make overly optimistic interpretations of initial information, or be inadequately prepared to receive certain information; 2) lack of QL discussions during the initial hospitalization or time of the initial chronic illness diagnosis. This emerged only from the parents groups and included the fact that QL was often not addressed in discussions of their child's medical care, that the long-term picture was often avoided in these discussions, that the parents themselves seemed to be avoided by the physicians once it seemed that acute medical treatment had no more to offer, a focus on survival rather than QL, and a concern that the status of, and effects on, the rest of the family was inadequately or inconsistently addressed; 3) ethics of decisions to initiate or continue technological life support including the following items listed by both parent and health care worker groups: the family's religious beliefs were often ignored, physicians' focus seemed to be on survival or hope rather than QL, parents not empowered to make decisions to discontinue life support, and some parents view technological support as experimentation; and the following issues raised only by the health care worker groups: parents should never have to make such decisions about their child, Baby Doe laws and fear of litigation may drive treatment by physicians, and the fact that technology exceeds the sociology and the ethical reflection on these issues; 4) ethical issues surrounding potential Medicaid cuts which are discussed below.

Said one parent, "I don't think that medical professionals give parents enough credit that death is part of life and we can accept that." Said another, "Why make all the effort to save the children in the beginning if we cannot provide a quality of life for them all along the way?" One health care worker commented, "Let's look carefully at these technological advances and really see if we are benefiting the child and family, or if we are just so excited about what we can create that we forget what happens after we created it."

HOME HEALTH CARE

All three groups saw home health care nursing adequacy as necessary for acceptable QL for the child and the family. Parents indicated that the independent nursing option was highly valued. Parents and health care workers noted that parents are put in and out of the medical provider role depending on the situation and whether or not a nurse is present. Favorable aspects of home health care nursing included the fact that it affords increased family time and activities together, increased time with family members other than the child, and that it optimizes medical care for the family and helps keep them out of the hospital. Friendships often develop with the nurses, however, lack of privacy was a significant issue. Siblings indicated that they adjusted quickly to the stranger in their home. Additional unfavorable aspects of home health care nursing voiced by the parents included variable quality of nurses and agencies, the fact that nurses or aides are not always available or consistent, conflicts between the nurses and siblings of the child, and the fact that nurses may bypass parents in communication with physicians about the child's medical care. A strong theme emerging from both parent and healthcare worker groups was the loss of control of one's own household. Summarized one parent, "Can't live with them, can't live without them." A health care worker noted, "It is never an easy trade, either you have the nurse there, always constantly in your personal space with your family, or if you go without them, you will have to be away from the rest of your family...either way it is very stressful." A sibling noted that, without a home nurse "my parents would need to take care of him 24-hours a day, so they would be very, very tired out and that would make them kind of grouchy."

ROLE OF MEDICAID

A general consensus shared by both the parents groups and the health care workers groups emerged regarding potential cuts in Medicaid services to these children. These themes sorted into three categories. First, aspects of potential Medicaid cuts that would decrease QL for the child or family emerged and included: increased medical risk for the child due to decreased input from trained pro-

fessionals, and problems with inadequacy of medical supplies, including the current situation where some families are needing to reuse disposable supplies; increased time expenditures and stress on the family fighting for services or appeals of denied services; further loss of control of one's own life and family. All three groups mentioned the following: cuts greatly aggravate the aforementioned problems of decreased family motility and activities, and increased centering on the handicapped child; increased fatigue, frustration and sleep deprivation; and fear of how far Medicaid cuts might go. A clear theme emerging from the siblings group included fears of divorce and poverty related to Medicaid cuts.

Secondly, ethical issues of potential Medicaid cuts were mentioned by parents and health care workers, and included the state applying the term "parenting" to provision of skilled nursing care to the child by the parent; unrealistic expectations of parents regarding the ability to provide nursing care for the child, take care of their other children, work, maintain their marital relationship and perform other household duties; and the fact that parents appear to be promised a level of service at discharge planning, prior to agreeing to take the child home on technological support, then have services pulled away at intervals once they are home.

Thirdly, recommendations regarding Medicaid services emerging from parents and health care workers included provisions for respite care; a streamlined appeal process; a voucher system for supplies; a system which allows flexible scheduling of nursing hours based on family needs; and physician support for reasonable parental requests for services, and having their professional judgment respected by the state approval process.

The following representative quotes on this issue all emerged from the health care workers group: "It's not just the stress...but the absolute fear of how much you are going to take away, and where am I going to be left? We have seen them take services completely away from families." "We've pushed so much what can be handled at home...that we have an entire workforce out here in the community called parents who are providing care that normally would be provided in the hospital and saving everybody a bunch of money, but then putting this pressure on them that, if you don't do this, then there is something wrong with you." And finally, "Spend a day with the family - it would speak for itself."

DISCUSSION

Prior studies[4,6,7-9,13-16] have explored psychosocial issues of families with chronically ill children, including technology-dependent children, but did not focus on quality-of-life issues. All revealed significant physical and emotional stress, and disrupted relationships in the families, one noting decreased coping of the primary care giver over time.[8] Eight used qualitative methodology, including two unpublished dissertations, Thorp[16] and O'Brien.[15] In general, these studies revealed problematic communication and lack of respect for parents from health professionals, especially physicians; dependence upon, but problems with home nursing, including lack of privacy; difficulty with third party payors and service providers; and financial problems. Parents were seen to assume the case manager role, seek out similar parents for support, experience isolation from traditional friends, fear an uncertain future, lack respite care, and feel complete loss of control of their lives. As these themes are also reflected in the earliest studies,[3,17] and in our present work, it appears that many of these issues have not been resolved over the past 17 years.

While prior studies have suggested positive and negative effects of chronically ill children on their siblings,[15,18] our study heard directly from this group. Our siblings voiced the awareness and impacts of most of the family QL and Medicaid cut issues of the parents and health care workers, fearing most, poverty and divorce. They indicated resilience with respect to privacy issues, a lack of embarrassment previously suggested,[14] and a focus on the relational aspects of the QL definition for their affected sibling.

Our definition of QL, stable or improving physical comfort and function and integration into the family and community, is one of few offered in the literature for this population of children. QL issues surfaced during interviews of 20 parent sets who had faced life support decisions.[19] Their definitions varied considerably with the family, dealt with respect, functional status, and some relationship with the environment (the most basic definition emerging from our study). In comparison, our definition was less variable, perhaps due to focus group format, and our study did not include cancer patients but focused exclusively on technology-dependent children at home. An opinion offered by Battle[16] ties in many of the ethical issues that emerged in our group; "QL is an overused phrase that fails to suggest the unremitting pain, constant vigilance, and lack of expectation or hope for change with which families and caretakers continuously must deal."

The ethical issues and lack of QL discussions during life support decisions raised in our study merged with the additional concern raised by our study and others[9,13,15,20] concerning potential or actual Medicaid cuts. Health care workers involved in long-term life-support decisions and Medicaid officials should dialogue such that realistic views of the long-term home care of these children are presented to the parents, and that there is a continuum of adequate support for these families following the heroics.

The alternative is having the parents left "holding the bag" once services are cut following discharge. As Knoll[9] states, "No one is out to 'milk the system', but simply seeking support to meet the extraordinary demands of raising their children." Concludes Battle,[16] "We must not rest until society affords the survivors and victims of our progress the best possible care."

In summary, this is a medically and psychosocially fragile population where technology appears to exceed the sociological and ethical components of their care. QL for the child is defined in terms of physical comfort, functional status and family and community integration. Family QL is greatly affected by the child, and depends upon adequate services. QL discussions with physicians need to occur concurrently with decisions to embark upon long-term technological support. Parents assume an ambiguous parenting role with their child during hospitalization, and an ambiguous medical role with their child once home. These families need respite care and advocacy from their health care team.

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WISCONSIN MEDICAL JOURNAL

Leukemia and Kidney Failure: Case Presentation and Review of the Literature

by Anne Marie Reed, MD, Teresa Silberman, MD, and Edward Blau, MD

INTRODUCTION

Acute renal failure secondary to renal leukemic infiltration occurs in less than 3% of patients with acute lymphoblastic leukemia (ALL).[1,2,3,4] Patients with kidney failure are a challenge to oncologists trying to induce remission without worsening the metabolic complications of renal failure. Radiation therapy to both kidneys prior to chemotherapy induction has been recommended by some.[5] In this paper, we present a patient with acute renal failure secondary to ALL who benefited from radiation therapy.

CASE REPORT

A 10-year-old, previously healthy boy presented with a two-week history of fatigue and 7-lbs. weight loss. At his local clinic, he was found to have a white blood count of 134,000/ul, hemoglobin of 9 g/dl, and platelet count 22,000/ul. The BUN was 56 mg/dl, and creatinine 2.2 mg/dl. (Table I)

On admission to our institution later that day, he was febrile (101.4 degrees F) with a pulse of 100 beats/min, respirations 24/min, blood pressure 110/74 mmHg. He appeared pale with periorbital edema and massive hepatosplenomegaly. No lymphadenopathy or spontaneous bleeding was observed. Admission laboratory studies revealed a white blood count of 95,000/ul with 77% blasts, hemoglobin of 7.8 g/dl, and platelet count 1 7,000/ul. The creatinine was 2.2 mg/dl with a creatinine clearance of 32 ml/min/1.73 m^2. The BUN was 61 mg/dl, LDH 2,108/ul, uric acid 30.4 mg/dl. The phosphorous was 10.9 mg/dl, and ionized calcium 3.8 mg/dl. The sodium, potassium, chloride and bicarbonate were normal.

Bone marrow aspiration showed elevated T-cell markers (CD2, CD3, CDS, CD7) which is consistent with T-cell lymphoblastic leukemia. X-rays revealed an enlarged mediastinum and massive hepatosplenomegaly. An ultrasound of the kidneys showed large echogenic kidneys without evidence of obstruction or focal masses. Allopurinol was given at 50% of the usual recommended dose due to renal failure, and alkalinization of the urine was started. Over four days, the patient received a total of 600 cGy (600 rads) to both kidneys.

On the third hospital day, the creatinine was 3.2 mg/dl with a creatinine clearance of 22 ml/min/1.73 m^2. The BUN was 54 mg/dl, phosphorous 8.7 mg/dl, uric acid 19.6 mg/dl. The urine output averaged 2 cc/kg/hr. A CT of the chest revealed bilateral pleural effusions and a very small anterior mediastinal mass. By the seventh hospital day, the creatinine had decreased to 1.6 mg/dl with a creatinine clearance of 44 ml/min/1.73 m^2. The BUN was 21 mg/dl, phosphorous 4.1 mg/dl, uric acid 7.2 mg/dl and white blood count 1 0,800/ul. Chemotherapy consisting of Vincristine, intrathecal ARA-C, Daunomycin and Prednisone was started. Asparaginase was given on day three of chemotherapy. On day seven of chemotherapy a bone marrow aspirate showed less than 1% blast cells.

The patient tolerated chemotherapy very well except for progressively worsening pleural effusions. On the fifth day of chemotherapy, 530 cc of clear yellow pleural exudative fluid were removed from the patient's left chest which was negative for tumor cells.

Fourteen days after chemotherapy was begun, the patient was discharged home in good condition with normal kidney function. Presently, he continues chemotherapy as an outpatient and has normal renal function.

DISCUSSION

Leukemia may involve multiple organ systems, with leukemic infiltration being found in lymph nodes, spleen, liver, bone and the central nervous system. The kidneys show diffuse infiltration in 60%-95% of cases of acute leukemia,[3,4,5,6] causing renal enlargement. Microscopically, the leukemic infiltration may be nodular or diffuse. The latter pattern is more common in children. Usually, the infiltration is bilateral and symmetrical with more extensive involvement of the cortex than the medulla. This renal infiltration can occur at any time during the course of leukemia including at the time of diagnosis. However, it occurs most often when the patient is in relapse.[3,5,6]

Although leukemic infiltrates in the kidney are fairly common, it rarely leads to acute renal failure. The incidence of acute renal failure attributed to leukemic infiltrates is 0.6 to 2.2%.[1,2,3,4] The mechanism of renal failure with diffuse infiltration is not clearly defined. It is thought to be due to intrarenal

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Table I. Laboratory Data and Therapy During Hospitalization

Day of Hospitalization	1A	1B	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
WBC (10^3/uL)	134	94.4	50.7	27.4	12.6	9.9	10.3	10.8	6.5	2.0	1.7	1.1	1.1	1.0	.8	.7	.7	.8	.6	.8
Blasts (%)	65	77	59	57	55	37	34	30	0	2	0	0	0	0	0	0	0	0		0
Potassium (mmo1/L)	5	4.6	4.4	4.2	3.7	3.8	3.6	3.6	4.6	4.4	4.5	4.1	4.0	4.3		4.5				
Phosphorous (mg/dL)		10.9	9.5	8.6	8.6	5.8	4.5	4.1	7.8	6.5	5.5	3.7	3.6	3.1		2.8				
BUN (mg/dL)	56	61	60	53	52	44	33	23	29	37	34	32	27	21		17				
Creatinine (mg/dL)	2.2	2.2	2.6	3.2	3.0	2.5	2.0	1.6	1.2	1.2	0.7	0.7	0.5	0.5		0.4				
Uric Acid (mg/dL)		30.4	27.1	19.6	16.6	12.7	9.7	7.2	6.5	6.7	6.4	6.4	4.0	2.9		3.1				
Radiation Therapy		*	*	*	*															
Chemotherapy							*	*	*	*	*	*	*	*	*	*	*	*	*	*

Day 1A – patient's local hospital Day 1B – our institution

obstruction as the renal tubules are compressed histologically. Nonetheless, abnormal glomerular filtration may severely inhibit renal excretion of chemotherapeutic agents, which may result in marked systemic toxicity if not corrected. Decreased glomerular filtration does not allow clearance of the products of leukemic cell destruction such as potassium and phosphorous.[3,5]

Uric acid nephropathy may occur spontaneously during the course of acute leukemia. Occasionally it can herald the presence of hematologic malignancies in children who have no other clinical evidence of malignancy. Dialysis may be necessary to treat uric acid nephropathy until renal insufficiency resolves.[3, 4, 7, 8]

Uric acid nephropathy with acute renal failure can occur in children with lymphoid malignancies either at diagnosis or more commonly following initiation of chemotherapy. It is most often seen in patients who have evidence of a large leukemic cell burden. Elevated serum uric acid levels result from excessive proliferation of tumor cells with increased nucleic acid production.[3,7,8,9]

Uric acid nephropathy can be avoided by Allopurinol, alkalinization of the urine, and maintaining a high urine volume.[3,4,8] Very gradual tumor destruction by less intensive therapy may reduce the risk of tumor lysis syndrome. Tumor lysis syndrome is characterized by hyperuricemia, hyperkalemia, and hyperphosphatemia as the tumor cells are killed releasing DNA and potassium.[8]

Along with Allopurinol, urine alkalinization and generous fluids, Stoffel, et al, recommended radiation therapy to both kidneys for patients with renal failure, oliguria, enlarged kidneys, and patients at high risk for renal failure with elevated white blood count, BUN, creatinine and uric acid levels.[5] The suggested dose is 600 cGy (600 rads) in four treatments over four days.[5] Irradiation of the kidneys in these patients helps by eliminating the leukemic infiltrates prior to commencing chemotherapy.[5]

CONCLUSION

Our patient's renal failure may have been due to leukemic infiltrates, uric acid nephropathy, or both. Renal biopsy was not indicated. However, irradiation of the kidneys significantly improved renal function and the patient's kidneys were better able to excrete chemotherapeutic agents and the breakdown products of the leukemic cells.

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MetaStar Matters

Diabetes Outpatient Project

by Joseph Blustein, MD, Jay Gold, MD, JD, MPH and Veronica Drake

MetaStar is inviting clinics in Wisconsin to participate in a diabetes-focused outpatient quality improvement project. The positive results of the diabetes pilot project were previously published in this column (March, 1998) showing improvement in all three indicators: annual dilated eye exams, annual foot exams and biannual hemoglobin A1c tests. This project was modified and expanded to include other providers across the state. MetaStar's recruitment this past spring was successful in signing on clinic-partners covering about 10% of Wisconsin's Medicare diabetics. This group of collaborators is the source of the baseline data in this report and is referred to as the first cohort. MetaStar's goal is to reach at least an additional 15% of the Medicare beneficiaries with diabetes in Wisconsin in its second cohort.

There is a significant morbidity associated with diabetes in Wisconsin as described in the recently published "Burden of Diabetes in Wisconsin" (Diabetes Control Program, Division of Health, 1997). According to that report, an estimated 315,000 Wisconsin residents have diabetes mellitus. Diabetes causes numerous systemic complications and is a major cause of blindness, amputations, hospitalizations and premature deaths. Diabetes is the leading cause of new blindness in the working-age population, and accounts for more than half of the amputations each year. In 1994, there were over 1,400 diabetes-related amputations in Wisconsin. In that same year, there were over half a billion dollars in diabetes-related hospitalization charges in the state. Clearly, diabetes management is challenging to those with the disease, to health care providers, and to society as a whole.

Achieving Better Care

Decreasing the complications of diabetes is a major emphasis of public health as exemplified by the promotion of "Wisconsin's Essential Diabetes Care Guidelines" through the Diabetes Control Program. The project MetaStar offers is a process whereby clinics can achieve better diabetes care for their patients. There are no external costs to participate – small sample sizes are encouraged and chart abstraction time is minimal. However, the benefits of participating are great.

The objectives of this project are to increase the number of patients who receive an annual dilated eye exam, to increase the number of patients who receive an annual foot exam, and to increase the number of patients who receive at least two $HgbA_{1C}$ tests during the year.

Improved outcomes in clinical care can be achieved through improved patient management. Better glycemic control can reduce by as much as 75% the overall complications of diabetes; nephropathy, neuropathy, retinopathy and cardiovascular death. Early recognition and treatment of diabetic retinopathy can have a significant impact on reducing the incidence of blindness in this population. Proliferative diabetic retinopathy and diabetic macular edema both, if left untreated, have a poor prognosis. Either of these types of diabetic retinopathy can be asymptomatic well beyond the optimal treatment stage. This pathology can be properly identified through a dilated eye exam performed by a trained ophthalmologist/optometrist and effective laser therapy can be initiated.

The first cohort of clinics, representing 7,704 Medicare beneficiaries with diabetes, abstracted a random sample of records from their primary care (GP, IM and FP) patients with diagnosed diabetes (prior to the study period). Only diabetics who were established patients of the specific clinic were included.

Baseline aggregate results for the first cohort showed that only 11.6% (+ or – 2.1%)* of these established diabetic Medicare patients had documentation of an annual dilated eye exam; 49.3% (+ or – 4.3%)* had one or more foot exams per year and; 64.5% (+ or – 4.1%)* had two or more hemoglobin A1c test results per year. Clearly there are opportunities for improvement. The clinic-specific data reported to each of the collaborators showed individual opportunities for improvement. Many of MetaStar's diabetes project partners were so excited about this project that they had implemented changes before even receiving the baseline data.

MetaStar will assist the collaborators as resources for coaching and facilitating training for CQI (continuous quality improvement), share best practices, provide staff/project team support and materials, and coordinate educational seminars with CME, in addition to providing the appropriate data

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MetaStar Matters is not reviewed by the *WMJ* Editorial Board. Dr. Gold is Senior Vice President and Principal Clinical Coordinator; Dr. Blustein is Medical Director; and Ms. Drake is the Project Communication Specialist; all are associated with MetaStar. Reprint requests to Jay A. Gold, MD, JD, MPH, MetaStar, 2909 Landmark Place, Madison, WI 53713.

From the Office of General Counsel

Pharmacists Administering Vaccines – An Increase In Your Liability?

by Kalisa Barratt, JD, SMS Associate General Counsel

This spring, Wisconsin passed a new law that will allow pharmacists to administer vaccines in certain circumstances. There are a number of limitations placed upon pharmacists who wish to administer vaccines, however. The most pertinent to practicing physicians is that the pharmacist must obtain a physician's agreement to a "vaccination protocol." It is important that before agreeing to such a protocol, physicians carefully consider the liability associated therewith. The law became effective in June.

Requirements of the Protocol

The law does not specifically define what should be included in the vaccination protocol. The protocol must be in writing. The protocol must have a specified effective period that may be no more than two years in duration. Other than those two limitations, the law merely requires an agreement between a physician and a pharmacist that addresses vaccination procedures, record-keeping and reporting requirements. There is no limit to the number of pharmacists with whom a physician may have a protocol. However, as noted below, your liability will increase exponentially as the number of protocols you agree to increases. Thus, it is suggested that you keep the number of protocols you agree to at a minimum.

Suggestions for Protocols

Perhaps the best approach to crafting protocols, is to model them after protocols that you already use for delegating medical acts. The protocols dealing with vaccination procedures might contain the following:

- Incorporation of the most current information relating to vaccines.
- Ideally, the pharmacist is fully familiar with the patient's history and then verifies all information with the patient prior to administration.
- The patient should be apprised of all risks associated with the given vaccine and be told to contact a physician if problems arise.
- Record-keeping requirements that mirror those required of physicians under the state and federal law should be required. This will ensure that records are available to patients and others for future use. At the very least, records should be required to be maintained for 10 years.
- Although close oversight will be difficult, protocols concerning supervision must clearly spell out when a pharmacist should contact the physician. Consider requiring the pharmacist report any untoward results immediately. Obviously, if the pharmacist has any questions, he or she should contact the physician before proceeding with the administration.
- The protocol must have an effective period specified within it, not to exceed two years.

Once the protocols are established, don't forget about them. Have ongoing interaction with the pharmacist to ensure his or her skill sets meet your expectations. Periodically, you should review the protocols and make any necessary adjustments. Reviewing the protocols every six months is probably adequate.

Legal Liability

Because physician agreement to the protocol is required, there have been concerns that a protocol will be considered the equivalent to an attestation of the proficiency of the pharmacist's ability to administer the vaccine by the physician. While this may or may not be true, a physician who enters into a protocol agreement should be aware that his or her liability is increased as a result. Although a pharmacist may be sued for a bad outcome associated with administering the vaccine, the physician who issued the protocol will likely be brought into the suit as well. It could be argued that these protocols are akin to delegated medical acts. As such, the physician could be vicariously liable for the acts of the pharmacists.

For this reason, many malpractice insurance carriers are counseling their insured physicians to enter into the protocol agreements only with pharmacists with whom they are very familiar, for example

ones in their own integrated delivery system or someone with whom you regularly do business. The closer the affiliation, the more likely it is that all parties will have the same philosophical approach to risk management and other issues. You should call your malpractice liability carrier to inquire about its suggestions relating to these protocols.

If you are contacted by a pharmacist who wishes you to agree to a protocol, consider whether you are comfortable with the pharmacist's skill and reputation. Do you wish your name to be affiliated with the pharmacist? Are you willing to be responsible for his or her actions? And, finally, would you want your patients receiving their vaccinations from the pharmacist?

Other Requirements

The law has other requirements that pharmacists must meet in order to administer vaccines. They must complete 12 hours of specific training that includes training in vaccination storage, protocols, injection technique, emergency procedures and record keeping. They must also carry liability insurance that covers this activity. The pharmacist may not delegate this duty to anyone. Finally, pharmacists may not administer a vaccine to a person who is under the age of 18.

Conclusion

This law was passed in hopes of making vaccinations more readily available to the general adult public. Because of the age limitation, pharmacists will most likely use the vaccination protocol to administer flu shots. With the cold and flu season nearing, physicians who are approached on this issue should consider carefully whether or not to participate in vaccination protocols. Ultimately, each physician must decide with which pharmacist, if any, he or she will agree to a protocol.

MetaStar Matters — Continued from p. 58

analysis reports. The MetaStar team uses an individualized approach for each clinical setting that would facilitate a collaborative effort to improve health care.

MetaStar's and its partners' common goal is to decrease visual impairment and lower limb amputations in diabetics by increasing the performance of eye, foot and glycosylated hemoglobin exams in the outpatient setting. MetaStar is working together with the State Medical Society and the Wisconsin Diabetes Control Program of the Bureau of Public Health in this effort. If your organization would like to participate in this important project or if you want more information, please contact Kris Miesbauer, Project Coordinator, MetaStar, 2909 Landmark Place, Madison, WI 53713, or at (608) 274-1940.

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Your Financial Fitness

Estate Planning Documents for Your Consideration

by Michael J. Dolan, CLU, ChFC,
President, SMS Insurance Services, Inc.

1. **Wills.** For many people, a Will is an estate planning document that they would rather not think about; however, it is the only way to reach back from the grave to accurately convey the wishes of the deceased and ensure that they are carried out. There are three primary objectives to bear in mind when preparing a Will.

a) **Trusts.** A Will often makes it possible to create testamentary trusts to minimize estate taxes and various transfer costs, and to control and protect assets. The primary purpose of these trusts is to benefit your spouse, children, other family members, and any other loved ones.

b) **Residual Estate Distribution.** It is important that the person and their attorney review the ownership and beneficiary particulars of all property and assets when a Will is created, in order to control the residual estate distribution. Jointly-owned property generally goes to the surviving joint owner; the same is true of community property. Life insurance and pension benefits are usually payable to named beneficiaries. The provisions of a trust determine who receives the remainder.

c) **Guardianship for Minor(s).** A Will should also name a guardian for any minor children in the event the spouse does not qualify or does not survive the deceased. Otherwise, the court might appoint someone the individual would not want as a guardian.

The SMS Foundation has developed an excellent booklet, "How to Improve Your Will," that is available at no charge. Contact Julie Hein, SMS Foundation Executive Director, to obtain a copy.

2. **Powers of Attorney.** A Durable Power of Attorney should be implemented whereby one spouse would appoint the other spouse as the attorney-in-fact to make financial decisions should the need present itself. The Power of Attorney, if properly drafted, can often avoid incompetency concerns upon the incapacitation of either spouse. It is also strongly recommended that an alternate attorney-in-fact be appointed to address management and control issues for the surviving spouse.

3. **Living Will.** The Living Will is a statement whereby one may make known in advance, their wishes regarding end-of-life medical decisions. The typical Living Will addresses at least two medical conditions. First, the Living Will should address the issue of an individual who is in a terminal and incurable medical situation. The other issue that the Living Will should address is a persistent vegetative state. One should note that a persistent vegetative state, more commonly known as a long-term coma, is not necessarily a terminal condition.

In addition to addressing the two medical conditions set forth above, the Living Will should also address the level of care that the individual would decline. A typical state statute would permit the individual to request that life-sustaining procedures be terminated if the procedures involve the use of machines which replace a normal bodily function. In addition, a typical state statute would also address artificial nutrition and hydration. One should make the individual aware that these arrangements exist but the ultimate decision resides with the individual.

4. **Health Care Power of Attorney.** The Health Care Power of Attorney, also known as an Advance Medical Directive, permits an individual to appoint another person as the health care agent to make medical decisions for the principal if the principal is unable to do so. While the choice of the Living Will should be left with the individual, one should be encouraged to execute a Health Care Power of Attorney. If someone is ever in a situation where he or she cannot make medical decisions, this does not mean that medical decisions will not be made. The issue is who will make those decisions. One may rely on the medical bureaucracy to accede to the wishes of the individual or one may involve the courts through an incompetency proceeding. The Health Care Power of Attorney would alleviate the need for either course of action.

Additional information is available on the State Medical Society Web site at: **www.wismed.com/advocacy/endlife.htm**

NOTE: This document is not intended as legal advice. Please refer specific tax and legal questions to your accountant or legal counsel.

Michael J. Dolan is president and chief operating officer of SMS Insurance Services and a member of the National Association of Life Underwriters. He can be reached at **SMS, ext. 550,** or via e-mail at: **MICHAELD@smswi.org.**

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Hematologist/Medical Oncologist. Hennepin County Medical Center (HCMC), a University of MN affiliated teaching hospital, and Hennepin Faculty Associates (HFA) seek BC/BE Hematologist/Medical Oncologist. Our new Cancer Center opened January 1998 and includes Medical Oncology, Radiation Oncology, Surgical Oncology, and Womens' Imaging utilizing a multidisciplinary team approach to oncology patient care. Strong clinical abilities necessary. Responsibilities include providing medical care and educating students, residents, and fel-

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Fort Atkinson, Wisconsin. Fort Atkinson Medical Center, an affiliated clinic of Dean Medical Center, is actively recruiting for a BE/BC family physician to join their six person practice. The ideal candidate should have an interest in doing full range family practice including obstetrics and intensive care unit work. Call schedule is 1-5 for weekdays and weekends and each full time physician works 4.25 clinic days per week and sees 20-30 patients per day. Contact Scott Lindblom, Dean Medical Center, 1808 West Beltline Highway, Madison, Wisconsin, 53715, (work) 1-800-279-9966, (608) 250-1550, (home) (608) 845-2390, FAX (608) 250-1441. 9-11/98

Luxemburg, Wisconsin - The Luxemburg Clinic, an affiliate of St. Vincent Hospital, is expanding its family practice department. This primary care medical practice is located approximately 15 miles east of Green Bay in the town of Luxemburg, (pop. 1,400), in Kewaunee County. Enjoy a safe, family oriented community with excellent schools, surrounded by lakes, streams, forests, and farms. Excellent compensation and benefits are provided. Contact Claudine Taub @ 1-800-236-3030, ctaub@stvgb.org, or fax: 920-431-3043. 9,11/98

Lancaster, Wisconsin. Dean Medical Center, a 395 physician multi-specialty group, is actively recruiting for a BE/BC family practice physician for its Grant Community Clinic in Lancaster, Wisconsin (population 4,200). Their current staff consists of two family physicians, one internist and one general surgeon. The group also has one physician assistant and one nurse practitioner on staff. Each physician works four days per week, seeing an average of 25 patients daily. A minimum $120,000.00 guaranteed salary plus incentive is provided. For more information please contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, 1-800-279-9966, (608) 250-1550, FAX (608) 250-1441 or at home (608) 845-2390. 9-11/98

The Fox Valley Veterans Affairs Clinic, a satellite of the Milwaukee Veterans Affairs Medical Center, Appleton, WI is recruiting for an Internal Medicine or Family Practice Physician who is Board Certified/Eligible. This is a community based Primary Care clinic providing comprehensive care to approximately 7,000 veterans. Competitive salary and comprehensive benefit package. Send resume and cover letter to: Karen Karch, 10 Tri-Park, Appleton, WI 54914 or FAX at 920-831-7936. Questions call 920-831-0070. EOE 7-9/98

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Southeastern Wisconsin: Fort Atkinson and Watertown Hospitals seek BE/BC pediatricians, family practitioners, internists, OB/GYNs and urologist. Group, partnership, hospital based. Small town charm, easy access to Milwaukee, Madison 40 minutes away, Chicago, two hours. Call Rich at Fort Atkinson Memorial Health Services, 414-568-5413, e-mail at richard.lynch@ famhs.org 7-10/98

BEAVER DAM, WISCONSIN. Dean Medical Center a 395+ physician private multi-specialty group is actively recruiting a BE/BC internist to join an existing affiliated practice based in Beaver Dam, Wisconsin, which is located approximately 40 miles from Madison. The practice is located in a medical office building which is adjacent to a 125 bed acute care facility. Beaver Dam is a community of over 14,000 people with excellent recreational resources, including Beaver Dam Lake which is over 14 miles long with 149 miles of shoreline. The Community also has more than 270 acres of parks and high quality public and parochial school systems, including a technical college and Wayland Academy, 135 year old co-ed independent college prep school. This is an excellent opportunity for any physician that has additional interests in cardiology or gastroenterology. A two year salary plus incentive and excellent benefits is provided. The call schedule is shared with two other internists in Beaver Dam. For more information contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, Madison, Wisconsin, 53713, work (608) 250-1550, home (608) 845-2390 or fax (608) 250-1441. 7-10/98

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WMJ

October 1998

Obesity and Eating Disorders

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Thoughts on. . . Obesity and Eating Disorders

Sweet Tooth and the Scale: Physicians Help Patients Find Balance

by Judith D. Burke, Director, Communications

If September marks the start of the school year and the promise of new beginnings, October, with Halloween's trick or treat-sized bags of candy lining shelf after shelf in stores across the country, heralds the start of months-long focus on sweets and eating excesses.

Americans are, by many accounts, obsessed with food, diet and exercise. The Phen-phen phenomena, health club penetration in urban centers, media bombardment with everything from countless commercials for fast food, to magazines and cable TV programs devoted to recipes and cooking, to articles about fat farms and fitness, all point to a focus on food. And how many of you can identify people in your lives who are presently preoccupied with their weight? In our own SMS office, we think about it regularly: several staff people are fighting weight gained after moving to Wisconsin. We have women struggling to get back to their prepregnancy weight. More than a dozen of us are currently dieting. Several staffers are committed to exercise and participate in competitive events. Too many of us regularly visit the snack machine as the afternoon progresses.

Americans worry (to the tune of millions of dollars spent on every imaginable device, drug and development) about looking "good" as defined by fashion designers and photographers, but have little time to prepare healthy, nutritious meals, and too many of us skimp on exercise. Consequently, the population is both overweight and under-prepared to deal with it.

Our society is the fattest it's ever been. Today nearly 97 million people are overweight and/or obese. In fact, in the last decade the percentage of people who fall into these two categories has increased to 54.9 percent of adults age 20 years or older.

In Wisconsin, the picture is worse. Nearly 37.5 percent of men are obese, compared with 29.5 percent nationally. About 30 percent of Wisconsin women are obese, compared with 27 percent nationally.

In addition to the stigma attached to being overweight, obesity carries with it numerous health risks. Like tobacco use, most people know that they should avoid overeating, yet many do it anyway (after all, there's always the Rolaids® and Tums® to take care of indigestion when one overindulges). And like tobacco use, many people will probably not volunteer the fact that they overeat or binge eat to their physicians unless specifically asked about such habits. Consequently, physicians are challenged to engage their patients in meaningful dialogue about weight-related issues. It's not enough to simply put a patient on the scale and record the number in the chart (a process that largely doesn't involve physicians). The total cost attributable to obesity-related disease now approaches $100 billion annually! Patients need help battling the bulge, and physicians are in a position to influence their patients' habits.

This month, the *WMJ* looks at obesity and eating disorders in order to generate discussion before holiday calorie sprees consume us. We are pleased to bring you the executive summary of the NIH's first federal guidelines on the identification, evaluation and treatment of overweight and obesity in adults. The guidelines summary starts on **page 20**. We also feature a review of three common eating disorders and the treatments being offered by Wisconsin clinicians. In *Eating Disorders: A Weighty Issue for Clinicials and Their Patients,* which begins on **page 14,** Marc Kennedy looks at anorexia nervosa, bulimia, and binge eating.

On a different note, the Patients Compensation Fund is involved in a lawsuit that was filed in Milwaukee County Circuit Court when the state Supreme Court refused to hear it. William Listwan, MD, vice chair of the PIC-Wisconsin Board of Directors, presents a case for changing the goals of the Fund in his Guest Editorial, *Patients Compensation Fund: Time for a Biopsy?* which begins on **page 11.** An accompanying sidebar, *A Question of Ethics*, appears on **page 13** and is submitted by Michael K. McChrystal, a Professor of Law at Marquette University.

Finally, I want to introduce you to the *WMJ's* new managing editor, Kendi Parvin. Kendi comes to us from the Wisconsin Grocers Association and has many years of editorial experience. A graduate of the University of Iowa, she began her career as a high school journalism teacher in Ames, Iowa. Please join me in welcoming Kendi to the SMS, and feel free to contact her regarding submissions to the journal or any questions that you may have about the publication. **You can reach Kendi at SMS ext. 221 or send her e-mail at: KENDIP@smswi.org.**

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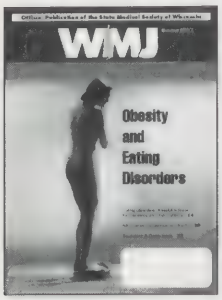
Official Publication of the State Medical Society of Wisconsin



COVER THEME OBESITY AND EATING DISORDERS

The "perfect" body. Who doesn't want it? Especially when we are bombarded with images of thin, glamorous people in the media every day.

For many of your patients, however, the simple act of stepping on a scale brings with it a tremendous amount anxiety. Whether they are overweight, obese or suffering from an eating disorder, they are unhappy with their bodies. And as the holiday season approaches, it only gets worse.

This month, WMJ examines what you, as physicians, can do to help your patients in their quest for a perfectly healthy body.

Cover design by Eric Landmann, TypeTronics

DEPARTMENTS

WHO'S IN THE NEWS

EDITORIALS

FOCUS ON OBESITY AND EATING DISORDERS

October 1998

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President's Page

Physicians Have a New Weapon to Help Patients Combat Overweight

by John D. Riesch, MD

What's for dinner? For our patients working long hours, or those juggling careers and families, the answer to that question increasingly is takeout food. Whether it's a super-sized extra value meal, cashew chicken from a favorite Chinese restaurant, or even a prepared meal from the local supermarket deli, diets have changed.

Sure, people still cook healthy meals at home, it just doesn't happen as often as it used to. For some, cooking is a hobby they save for the weekend. Others simply don't know how to cook—they don't have to. It's a lot quicker and easier to pick up dinner on the way home, or throw together a meal with prepared foods from the supermarket's frozen section.

The problem is, although those meals are convenient, and sometimes even nutritional, they are often loaded with fat. People can avoid high fat foods with low fat or no fat alternatives, but in some instances that "fat free" label becomes a green light to eat more.

No doubt this is one reason our society is the fattest it's ever been. Excess weight and obesity pose a major public health challenge. BMI, body mass index, still provides the best correlation to risk of death and illness. Additional measures include waist circumference and a patient's risk factors for diseases and conditions associated with obesity. Taken together, evaluation of these three measures can help identify those at risk for heart disease, stroke and other chronic diseases related to obesity.

And while our patients know being overweight is unhealthy, many don't understand the consequences. In a recent survey, 1,007 Americans were asked to identify health problems caused by obesity. Most could name only one – heart disease. Only 22% knew that obesity was a risk factor for high blood pressure. Just 5% linked obesity with increased risk of several cancers and high cholesterol. And only 4% knew that obesity is a risk factor for diabetes.

After smoking, obesity is the second most common cause of preventable death in the United States. But these statistics clearly show that our patients don't know enough about it.

Furthermore, people hear conflicting reports. Some authorities caution that for those just a little overweight, yo-yo dieting is more dangerous than the extra pounds. Others warn that the potential hazards of treatment do not outweigh the known hazards of being obese. And what's considered "a little overweight" versus obese?

As physicians, we need to ask ourselves if we're doing our part to educate and assist our overweight and obese patients. The National Institutes of Health has released "Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults." The Executive Summary of that report is reprinted in this issue of the *WMJ* (see page 20).

The guidelines, based on a review of the scientific literature on overweight and obesity, addresses 35 key clinical questions on how different treatment strategies affect weight loss and how weight control affects the major risk factors. It discusses the advantages of weight loss, offers a new assessment of overweight and obesity, goals for weight loss and maintenance, and special treatment groups.

The trend we've seen in adult obesity is also frighteningly present in children. Since treatment issues surrounding overweight children and adolescents are quite different from the treatment of adults, the NIH panel that compiled the guidelines called for a separate guideline for youth to be developed as soon as possible. However, a healthy eating plan and increased physical activity should be a primary goal for all families. Especially for families in Wisconsin.

John E. Patchett, JD

EVP Report

Electing Physician-Friendly Candidates

by John E. Patchett, JD, Executive Vice President

The fall election cycle is half over and there is every indication that millions will be spent to influence the outcome of Wisconsin's elections. There's a lot at stake, control of the state senate being the most prevalent. Physicians have the opportunity to influence the process by which much of your practice is governed. Government regulation enters into every facet of medicine, from mandates such as the new physician data collection law, to insurance coverage issues, medical malpractice, licensure requirements, and reimbursement.

So how did physician-friendly candidates fare in the primary election? State Representative Mark Green, son of Jeremy Green, MD, won his Republican primary and will face Jay Johnson in the 8th Congressional District. Republicans see this as their best chance to pick up a seat in the state. In the 2nd Congressional District, the election to replace Scott Klug will be between former Insurance Commissioner Josephine Musser and State Representative Tammy Baldwin. Neither is considered a strong friend-of-medicine. In the 1st Congressional District the race to succeed Congressman Neumann will be between Democrat Lydia Spottswood, wife of Paul Spottswood, MD, and Republican Paul Ryan. The WISPAC Board of Directors recommended to AMPAC, the AMA's political action committee, that both Green and Spottswood be endorsed.

At the state level, the most money will likely be spent in the 27th Senate District, which was vacated by Joe Wineke. Most political pundits agree that this is where partisan control of the state senate lies. Republican Nancy Mistele is running against Democrat Jon Erpenbach. The WISPAC Board of Directors has recommended that Nancy Mistele be endorsed.

In the State Assembly it is almost a foregone conclusion that Republicans will maintain their majority, however, there are several open seats that are up for grabs. The closest race is likely to take place in the 30th Assembly District (River Falls and Hudson area), which is being vacated by Republican Sheila Harsdorf. The demographics of this district have changed dramatically over the last few years, and rather than being composed of mostly farmers, it is now home to many professionals who commute to the Twin Cities and receive their news through Minneapolis media outlets.

Once again, I am compelled to urge your participation in the State Medical Society's direct giver and conduit program, Physicians for Better Government (PFBG) or our political action committee, WISPAC. Physicians must become more politically-active in order to balance the influence of the insurance industry, big business, labor unions and other health care professionals like the hospitals, optometrists, pharmacists and chiropractors. One need only look at the new mandate on physicians, the outpatient data collection law, to realize that our participation in the election process must improve.
For more information on how to become involved through WISPAC, contact **Peggy Partenfelder, SMS Political Membership Coordinator, at SMS ext. 267 or via e-mail at: PEGGYP@smswi.org.**

WISPAC-Recommended Candidates for Endorsement

GOVERNOR
Tommy Thompson

ATTORNEY GENERAL
Jim Doyle

CONGRESS
District 1
Lydia Spottswood

District 3
Ron Kind

District 5
Tom Barrett

District 6
Tom Petri

District 7
David Obey

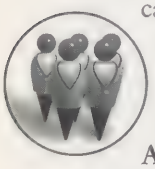
District 8
Mark Green

District 9
F. James Sensenbrenner, Jr.

Low Profile, Highly-Regarded Waukesha Physician Earns Respect of Community and SMS Colleagues

R. David Helling, MD, of Waukesha is a charitable group's dream. A battered woman and her children are in trouble. He personally takes them to a shelter. The local United Way needs a leader. He chairs the health care division. The fax machine dies. He donates another one.

"I think it comes from the heart. He's a sensitive, caring person," said Marie Kingsbury, Executive Director of the Women's Center in Waukesha. The Center provides shelter, counseling, child-care and other services to abused women. Kingsbury nominated Dr. Helling for the **1998 SMS Physician Citizen of the Year Award,** which he received during a ceremony July 16 at Waukesha Memorial Hospital.



"Dave is the kind of person who would never seek out recognition, doesn't expect it, doesn't even want it. And so, to nominate him knowing this, was something I felt compelled to do," Kingsbury added.

"There are an awful lot of people who do the same things," said Dr. Helling. "I don't consider myself anything unusual in that sense because I've met so many people who give a lot of their time."

Year In and Year Out

But those who know Dr. Helling consider his commitment quite unusual. He stands out as somebody who has given a tremendous amount back to his community. At the Women's Center, for example, he's been active for more than two decades. He has served as President (the first male to do so), Board member and Treasurer. Doctor Helling remains on the group's Advisory Board. Through his many contacts and activities, Kingsbury said Dr. Helling has helped develop awareness of domestic violence and sexual abuse. Waukesha is a relatively affluent community, and people may not realize that such problems still occur there.

"Doctor Helling has done a lot of things to help his patients, as well as those who are less fortunate," said SMS President John Riesch, MD, during the award presentation. "Not only has he been extremely generous with his personal financial contributions, but he has given his time and talent to serve others. It is for possessing extraordinary empathy and following through with action, that we are honoring this man."

Doctor Helling sometimes wonders himself how he found the time, especially during the late 1970's and early 1980's, when he and his wife Bonnie had four children in high school. "It was just kind of a way of life," Helling recalled. "Our friends were involved, so it was part of our social fabric."

Following in Parents' Footsteps

Doctor Helling credits his parents for instilling in him the responsibility to help others. He said they contributed to needy organizations and people "whether things were going well for them or not." So he always felt that "connection that people help other people out." He became active in volunteer organizations when he moved to Waukesha in 1972, after having joined a local church.

Doctor Helling said he feels fortunate that he has the time and resources to make contributions. Besides, he said the rewards he receives from his volunteer work are well worth the effort.

He recalled a time when he was working at a food pantry, and only had a five-pound bag of potatoes left to offer a woman who's husband recently left her and their child. A year later, Dr. Helling received a note from the woman that said: 'The most important thing you gave me was respect and compassion.' Back on her feet again, the woman enclosed a $50 donation. That experience stays with him.

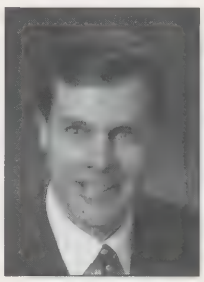
Doctor Helling has touched the lives of many people who've come upon hard times, and it's why he so deserves to be among the six physicians who were selected to receive the Physician Citizen of the Year award in 1998. Seven years ago, the State Medical Society of Wisconsin opened the nomination process for the award to the public. Based on these nominations, the SMS Commission on Public Information selects up to eight Physician Citizens of the Year from various medical society districts in the state. The award honors its recipients for the uncompensated civic, cultural, economic and charitable services they have provided to their local or state communities. It recognizes physicians like Dr. Helling, who have given of themselves to improve their community and state.

"I'm certainly going to keep involved," said the recently retired Dr. Helling. "I just joined the Board of Directors of United Way. That'll keep me busy through the fall."

Who's In The News

Christine M. Berg, MD

Kevin Fitzgerald, MD



John Fuller, MD

Sunita Khambatta, MD

Paul Mannino, MD

Physicians retiring in recent months are: **Richard L. Buechel, MD**, an orthopedic surgeon with the Bone and Joint Clinic, Wausau after 28 years; **Harry S. Caskey, MD**, after 44 years of service at the La Salle Clinic in Clintonville; **Art Cantwell, MD**, a general surgeon with the Shawano Medical Center after 29 years; **Charles Engel, MD**, after 30 years at the Franciscan Skemp Healthcare West Salem Clinic; **Fema So Garay, MD**, an obstetrician-gynecologist after 27 years in Port Washington; **Manucher Javid, MD**, an internationally acclaimed neurosurgeon after a 45-year career with the University of Wisconsin-Madison; **Alice Lee, MD**, after 27 years of serving the public in the northern Marinette County town of Wausaukee; **Donald H. McDonald, MD**, after providing 45 years of health care to the community of Winneconne; **R. David Petty, MD**, after 29 years as a family practitioner at the Shawano Medical Center; **R. William Roberts, MD**, a urologist with Urological Associates after 33 years of practice in Oshkosh, Fond du Lac and the surrounding communities; **Norman Schroeder, MD**, a family physician after 34 years at the Park Medical Center in Manitowoc, **Waldemar Wolfmeyer, MD**, after 35 years with the Kaukauna Clinic.

Thomas Bartell, MD, joined the medical staff at Beloit Memorial Hospital. He received his medical degree from the University of Wisconsin-Madison. He completed a plastic surgery residency at Barnes Hospital, Washington University Medical Center, St. Louis. He completed his residency fellowship in plastic surgery at St. Louis University and post residency fellowship in hand surgery in Tucson, AZ.

Obstetrician/gynecologist, **Christine M. Berg, MD,** joined Falls Medical Group. She is affiliated with St. Joseph's Hospital in Milwaukee, St. Michael Hospital, Community Memorial Hospital and St. Mary's Hospital-Ozaukee. Doctor Berg earned her medical degree from the Medical College of Wisconsin and completed her residency at the Medical College of Wisconsin Affiliated Hospitals.

Ten original members of Community Memorial Hospital medical staff in Menomonee Falls were honored at a reception and praised for their contributions and leadership throughout the years. The elite group consists of **Richard H. Bibler, MD; Donald E. Chisholm, MD; Philip J. Dougherty, MD; Kenneth J. Harrington, MD; Donald J. Heyrman, MD; Thomas A. Hofbauer, MD; John J. Foley, MD; R. James Rasmussen, MD; John D. Riesch, MD;** and **Robert D. Schmidt, MD.**

Family and sports medicine specialist and director of Mercy Health System's Sports Medicine Center, **David A. Braunreiter, MD,** was appointed clinical assistant professor of family medicine at the University of Wisconsin – Madison Medical School. He will teach sports medicine to senior medical students who are considering family medicine and primary care sports medicine as a specialty.

Joining the Shell Lake Clinic and Indianhead Medical Center is family physician, **Danielle Busse, DO.** She earned her medical degree from Midwestern University-Chicago College of Osteopathic Medicine in Illinois. Doctor Busse completed her residency at the University of Wisconsin-Eau Claire.

Otohinolaryngolist, **Andrew C. Campbell, MD,** joined Sheboygan Ear, Nose, and Throat. He earned his medical degree from Indiana University School of Medicine, Indianapolis, and completed a general surgery internship and an otolaryngology residency at the University of Cincinnati Medical Center.

The 1998 Award for Outstanding Community Service was presented to **Kathryn Dalsing, MD,** and **Mark Hughes, MD,** of Family Practice Associates, Dodgeville, by the Southwestern Wisconsin Community Action Program. The award recognizes the time, talent and care they donate to improve the health of low income women and men in Southwest Wisconsin.

Edsel G. Doreza, MD, FACP, an internist and nephrologist practicing in Walworth County, has been elected a fellow of the American College of Physicians-

Who's In The News

K. Neil Mittelberg, MD

V.K. Nair, MD

Laurel Rudolph, MD

Evan Saunders, MD

Bobby L. Yap, MD

American Society of Internal Medicine. He earned his medical degree and completed his residency at the University of the East College of Medicine in the Philippines and Loyola University Medical Center in Maywood, IL. Specialty training in nephrology was completed at Edward Hines Jr. Veterans Administration Hospital in Hines, IL.

Marc Erickson, MD, and **Jonathan McLaughlin, MD,** surgeons with Surgical Associates, Fort Atkinson, were accepted as fellows in the American College of Surgeons.

Kevin Fitzgerald, MD, joined the Franciscan Skemp Healthcare West Salem Clinic. He received his medical degree from Creighton University Medical School in Omaha, NE and completed his residency at the La Crosse-Mayo Family Practice Residency, La Crosse.

John Fuller, MD, and **K. Neil Mittelberg, MD,** of Rice Medical Center Urology, Stevens Point, are also providing services at Chain O'Lakes Family Clinic in Waupaca. **Doctor Fuller** earned his medical degree from the University of Iowa and served his residency at the university in the urology department. **Doctor Mittelberg** earned his medical degree at Loyola University, Chicago and served his residency at the University of Iowa Department of Urology.

John P. Gauder, MD, a physician with the Rice Clinic in Stevens Point, and Linda T. Johnson, RN, have been awarded the Good Samaritan Awards by the Portage County Division of the American Heart Association. They collaborated in responding to an individual who had experienced cardiac arrest during a local church service last fall. As a result of the CPR performed, the victim survived and received follow-up treatment with a heart specialist.

Michael Ginder, MD, joined the Green Lake Family Practice, which is a member of Community Health Network. He earned his medical degree from the University of Minnesota Medical School, and completed his residency at the Eastern Maine Medical Center in Bangor, Maine. Doctor Ginder will also provide coverage at the Princeton Family Medical Clinic.

Mark Hendricks, MD, and **John Kiser, MD,** were among a group from Bellin Hospital in Green Bay which reached the summit of the 14,411-foot Mt. Ranier, in Washington in July.

Retired surgeon, **Ralph Hudson, MD,** received the 1998 Citizen of the Year Award from the Mental Health Association in Eau Claire County. He has worked decades to alleviate alcohol impaired driving and is concerned about alcohol poisoning. He has served on various committees and volunteers for Meals on Wheels and The Community Table.

Pediatrician, **Michael A. Johnson, MD,** joined Wausau Medical Center – Marshfield Clinic. He earned his medical degree from Loyola University-Chicago Stritch School of Medicine, Maywood, IL. Doctor Johnson served a residency in pediatrics at the Medical College of Wisconsin Affiliated Hospitals, Children's Hospital of Wisconsin, Milwaukee.

Sunita Khambatta, MD, a pediatrician, joined Medical Associates Health Centers and will be serving patients at the Germantown and Menomonee Falls clinics. She earned her medical degree from the University of Illinois and completed her residency at the Medical College of Wisconsin, Children's Hospital.

Hak-Joong Kim, MD, of Milwaukee, has received Recognition with Distinction from the Provider Recognition Program of the American Diabetes Association and the National Committee for Quality Assurance, for providing quality care to his patients with diabetes.

Radiation oncologist **June Kim, MD,** and internal medicine specialist **Rama Singh, MD,** have joined the Marshfield Clinic. **Doctor Kim** earned her medical degree from UMDNJ-New Jersey Medical School, Newark, NJ. She completed a fellowship at Harvard Medical School/Massachusetts General Hospital in Boston. **Doctor Singh** earned her medical degree from MBBS University of Rajasthan, Jaipur, India, and

served a residency at Marshfield Clinic and St. Joseph's Hospital, Marshfield.

Family physician, **Robert Liedtke, MD,** joined the Lone Oak Health Center in Hartford. He earned his medical degree from the University of Illinois at Chicago and completed his residency at the Medical College of Wisconsin.

Internal medicine specialist, **Robert R. Lisek, MD,** joined the staff at Beloit Memorial Hospital. He earned his medical degree from St. George University's School of Medicine and completed his residency training at Gundersen-Lutheran Hospital in La Crosse.

Charles Lonsdorf, MD, a board certified family physician and current Medical Director of Emergency Services at Howard Young Medical Center in Woodruff, has joined the Family Practice Department of Marshfield Clinic-Lakeland Center, Minocqua.

Paul Mannino, MD, and **Bobby L. Yap, MD,** joined Mercy Clinic East, Janesville. Doctor Mannino earned his medical degree from the University of Wisconsin-Madison and completed a residency in family practice at the Medical College of Wisconsin in Waukesha. **Doctor Yap** earned his medical degree from the Davao Medical School Foundation in Davao City, Philippines. He completed his residency in family practice at the Racine Family Practice Program, Medical College of Wisconsin in Kenosha, where he served as chief resident.

Johan A. Mathison, MD, FACS, of Oshkosh, received a three-year appointment as Cancer Liaison Physician for the Hospital Cancer Program at Mercy Medical Center, and **Donald Van Beek, MD,** of Fond du Lac, received a three-year appointment as Cancer Liaison Physician for the hospital cancer program at Agnesian Health Care. The Cancer Liaison Program is an integral part of the Commission on Cancer of the American College of Surgeons.

Thomas McGorey, MD, joined the Watertown Area Health Services – Lakewood Family Clinic in Lake Mills. Doctor McGorey earned his medical degree from Loyola University-Chicago Stritch School of Medicine and completed a residency with the Waukesha Family Residency Program.

Radiologist **James McKinney, DO,** joined Wausau Medical Center. He earned his medical degree from the University of Osteopathic Medicine and Health Sciences, Des Moines, IA. Doctor McKinney served a residency in diagnostic radiology at OSF Saint Francis Medical Center, Peoria, IL.

Family practitioner **Gregory B. Melby, MD,** joined the medical staff of Marshfield Clinic-Oakwood Center. He earned his medical degree from the University of Minnesota, Minneapolis, and served his residency at Eau Claire Family Practice.

Francisco Miyares, MD, an internal medicine specialist, joined the staff at Beloit Memorial Hospital. He received his medical degree from Universidad Central Del Este in San Pedro De Macoris in the Dominican Republic. He completed his residency at Cook County Hospital in Chicago. Doctor Miyares will see patients at the Beloit Clinic South, the Roscoe-Rockton Medical Center and the Clinton Clinic.

V. K. Nair, MD, was elected president of the Wisconsin Urological Society. Doctor Nair has been at the Monroe Clinic for more than 26 years and is chairman of the surgery department.

Darren Nelson, MD, has achieved board certification in general surgery from the American Board of Surgeons. He earned his medical degree from Loyola University-Chicago Stritch School of Medicine and completed a residency at the Columbus Hospital in Chicago. He is a diplomat of the National Board of Medical Examiners and was appointed to the Ripon Medical Center Board of Directors by Mayor Bob Somers.

Anesthesiologists, **Frank North, MD,** and **G. Brent Shulman, MD,** joined Marshfield Clinic. **Doctor North** earned his medical degree from the University of Wisconsin Medical School. He served a residency in anesthesia at West Virginia University, Morgantown, and completed a fellowship in regional anesthesia at Virginia Mason Medical Center, Seattle, WA. Doctor Shulman earned his medical degree from the University of Western Ontario, London, Ontario, Canada. He served a residency in anesthesiology at St. Joseph's Health Centre, London, Ontario, Canada; and at Baystate Medical Center, Springfield, MA.

George T. Poullette, MD, of The Sheboygan Clinic-Plymouth, has earned the status of Diplomate of the American Board of Family Practice.

Helen Rakhmilevich, MD, joined the Lake Mills Medical Center. She earned her medical degree from the First Moscow Medical Institute in Moscow, Russia and completed a residency in internal medicine there. Doctor Rakhmilevich completed a residency in internal medicine at the University of Wisconsin Medical School-Milwaukee.

James A. Roberts, MD, joined Luther Hospital and Midelfort Clinic in Eau Claire. He earned his medical degree from the University of Minnesota Medical

School in Minneapolis and completed his residency in internal medicine at Gundersen Clinic in La Crosse.

Marshfield Clinic urgent care specialist, **Laurel A. Rudolph, MD,** was presented with the "Family Physician Community Service Award" by the Wisconsin Academy of Family Physicians. She has been credited with developing Sports Medicine of Marshfield, a team approach to the care of area athletes; supervising athletic trainers; and coordinating medical care for athletes at the area high schools.

Evan K. Saunders, MD, and **David Olson, MD,** were selected to participate in the Glaxo Wellcome/AMA New Leadership Development Program. They were two of 45 selected from an applicant pool of over 200, and will attend the program in Chicago on October 25-26.

Michael Schaars, MD, joined Marshfield Clinic-Lakeland Center. He received his medical degree from the Medical College of Wisconsin, Madison. Doctor Schaars served residencies in emergency medicine at Michigan State University/Kalamazoo Center for Medical Studies, and a transitional year residency at Gundersen Clinic and Lutheran Hospital, La Crosse.

Pediatrician, **Mark Staszkiewicz, MD,** joined the staff of Aurora Health Care facilities in Washington County. He received his medical degree from the University of Wisconsin Medical School and took his residency in the department of pediatrics at the Medical College of Wisconsin.

AMA Awards

The SMS member physicians listed below recently earned the AMA's Physician Recognition Award. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations.

Bemmann, Kathryn, MD
Errico, Charles A., MD
Gager, Walter E., MD
Johnson, Steven J., MD
Kuehner, Marvin E., MD
Luckey, William T., MD
McCormick, Michael R., MD
Reiskytl, John R., MD
Sukhwal, Aditya, MD
Thomalla, James V., MD
Westman, Jack C., MD

Welcome New Members

The individuals listed below were recently elected to SMS membership by their County Medical Societies. We are pleased to welcome them to the SMS.

Barron-Washburn-Burnett
Joseph A. Heaney, MD
Richard A. Huset, MD

Brown
John P. Miller, MD
Mark K. Reinke, MD

Douglas
Steven Peterson, MD

Eau Claire-Dunn-Pepin
Michael R. Gonzaga, MD
Robert McKay, MD

Oneida-Vilas
Linda R. Seale, MD

Outagamie
Robert A. Nonn, MD

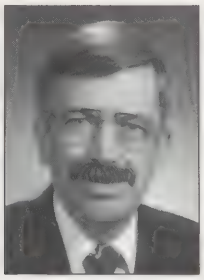
Rock
Francisco Javier Miyares, MD

Trempealeau-Jackson-Buffalo
Benjamin J. Boardman, MD

Waupaca
Catherine C. Martin, MD

Wood
Harold Lane Cohen, MD
Sherine J. Parimanath, MD

(S) designates medical student membership



Guest Editorial

Patients Compensation Fund: Time for a Biopsy?

by William J. Listwan, MD

When a patient has a skin lesion or lump that begins to change in color or size, a physician needs to reevaluate whether or not the lesion is benign. Likewise, the complexion of the Patients Compensation Fund (PCF) is changing. Though the Fund has served the medical community well for many years, it may be time to reevaluate the situation to determine if it is truly benign or something to be concerned about.

The Fund was established in 1975 as part of a political package to ensure adequate professional liability insurance was available to physicians and hospitals. At the time, many physicians could not obtain insurance to protect them from the potential risks of the practice of medicine. To its credit, the Fund allowed me and other physicians to continue practicing with malpractice coverage and the security of knowing that our homes and personal assets were not at risk.

Part of the reason the Fund withstood constitutional challenge was because it also was intended to benefit patients. The formation of the Fund and its continued existence assure that adequate monies are available for patients damaged by negligent provider actions. Indeed, it's called the "Patients Compensation Fund" - not the "The Physicians Protection Fund." The Fund has a board of governors, including health care providers, who are responsible for policy development and employee management. The Fund functions similar to an umbrella insurance policy but there are differences. It is not really an insurance or reinsurance company.

Over the years, the Fund generally has functioned in a harmonious partnership with physicians, clinics, hospitals and malpractice carriers. A malpractice insurer provided a primary layer of coverage for the healthcare provider as well as the defense. The Fund became involved only when an insurer's primary coverage limits, now set at $1 million, were exceeded.

In recent years, however, the Fund gradually has been changing its attitude and approach toward insureds and their primary carriers. These changes are inter-related but can best be discussed as four separate issues.

First, the Fund tends to want to settle lawsuits where there is a potential for losses that will penetrate the Fund. In some cases, this involves claims that a physician, his attorney and insurer view as defensible. In general, the Fund prefers the certainty of a known settlement prior to trial rather than taking the risk of going to court and losing. Although this is done in an attempt to protect Fund assets, it may actually encourage more claims and suits, ultimately putting a greater strain on the Fund financially.

More importantly, early settlement of these cases can greatly harm a physician's reputation. A physician with a settled case, negligent or not, is reported to the Medical Examining Board, the National Practitioner Data Bank, and eventually must report this fact on every HMO and hospital staff application. This may lead to credentialing problems at the hospital level and participation problems with health insurance plans. It also does not take into account the public awareness of the suit and its settlement in the community.

Secondly, the Fund has been initiating legal action against both named and unnamed insureds who might be found liable. This increases the amount of primary insurance coverage available to use in paying a settlement. In the case of a lawsuit with multiple defendants, the Fund can proceed to settle after obtaining consent from the insurance company for one of the defendants. The Fund may then sue the other defendants to try to collect their insurance coverage.

Even more disturbing is the Fund's tactic of suing physicians not originally named in the plaintiff's lawsuit. This occurs when the Fund believes there was negligence on the part of other providers not identified by the plaintiff's attorney. For example, if the plaintiff sued an internist for misdiagnosing

Doctor William Listwan is a specialist in internal medicine who resides in West Bend. He currently is vice-chair of the Board of Directors of Physicians Insurance Company (PIC) of Wisconsin as well as chair of PIC's Claims Committee and Risk Management Committee. Doctor Listwan also has served as president of the State Medical Society of Wisconsin.

pulmonary emboli, the Fund might later file a secondary claim against the nuclear medicine physician who interpreted the lung scan. Even though that physician was not initially named in the plaintiff's suit, the Fund may sue the other provider if it believes there was negligence on their part.

It's troubling that the Fund is using the dollars we pay in premiums to sue physicians. I doubt this was the original intent of the physicians who helped craft the original legislation in 1975.

Thirdly, the Fund has always shared fully in information developed by a physician's or hospital's attorney. Recently the Fund has begun to use this information to force settlements and to further its own actions when suing named or unnamed insureds. This is a double-edged sword because in the process of helping defend a physician, negative information may be developed by the defense attorney. Once the Fund has this information, it is aware that the information could be brought up in court and this influences the Fund's decision on whether or not to seek settlement. Assuming a settlement is reached, the Fund uses the information to force contributions from the defendant physician and other physicians.

This puts the defense attorney in an extremely difficult position since the defense attorney's first responsibility is to the insured physician. How much information to share with the Fund, and when, creates some very real and significant conflicts for the defense bar. (See sidebar on page 13.)

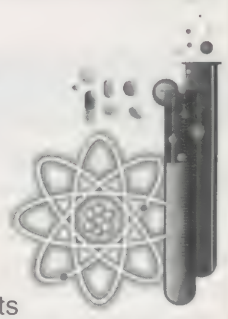
It's troubling that the Fund is using the dollars we pay in premiums to sue physicians. I doubt this was the original intent of the physicians who helped craft the original legislation in 1975.

Finally, the Fund has, on occasion, used the legal concept of "conflict of interest" to its advantage. The attorney hired by the primary carrier generally represents the Fund in court appearances. If the Fund however, in a subsequent action, sues the defendant physician, the Fund can prevent the original defense attorney from continuing to defend the physician because this would place the attorney in a "conflict of interest" because that attorney had represented the Fund.

In cases where this has occurred it has had a devastating effect on the insured physician who has spent months or years working with a particular attorney only to find out they have to start the entire process over again.

If one of my patients has a skin lesion that is increasing in size or changing in color, I make sure it gets biopsied. The biopsy will generally tell me whether it is a benign or malignant skin lesion and I can proceed accordingly. I think it's time we begin to carefully examine the Patients Compensation Fund and how it functions. It's possible some treatment (legislation) may be necessary. Or we may decide to wait and observe it more closely. Sometimes a complete excision is warranted. We all need to keep our eyes and ears open and be aware of the issues that affect us in regard to the Patients Compensation Fund.

Call for Papers, Reviews, Commentary...



The *WMJ* Editorial Board is currently seeking original articles for issues addressing topics related to:

- New Knowledge About Sleep
- Cancer in Wisconsin
- "Minimally Invasive" Surgery (stents, angioplasty, laser)
- Asthma
- End-of-Life Issues

Papers may be original research, literature or book reviews, case histories/reports accompanied by a brief overview of the relevant literature, well-documented opinions about future trends, or your thoughts on a particular topic in the form of a Guest Editorial.

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A Question of Ethics

by Michael K. McChrystal, JD

Amid the concerns raised about the Patients Compensation Fund is a pivotal question: Does state law require a physician's attorney to share confidential information with the Fund when a physician is sued for medical malpractice? In my view, the answer is "no."

The Fund 's requirement that an insurer's defense counsel enter into an unconditional attorney/ client relationship with the Fund is inconsistent with the law governing Wisconsin lawyers. Why? Because it imposes the formation of a joint attorney/ client relationship on an unwilling lawyer and unwilling co-clients under circumstances rife with the potential for serious conflicts of interest. It also requires the lawyer to act disloyally by disclosing client confidences under circumstances that could harm the client.

A consistent line of Wisconsin cases establishes that an attorney/ client relationship is formed when the parties so agree, as reflected in their words and conduct. The legal duties of a lawyer who represents a client can be sweeping and demanding, especially in the context of high stakes medical malpractice litigation. The Fund's all-or-nothing position is that insurance defense counsel represents the Fund as a co-equal, or perhaps even a superior client. The give-and-take that marks the formation of attorney-client relationships under Wisconsin law is jettisoned under the Fund's misinterpretation of the law.

Moreover, the multiple representation envisioned by the Fund involves the potential for serious conflicts of interest. The Fund's economic interest regularly conflicts with the insurer's interest and with the physician's financial and professional interest. Direct adversity, especially involving settlement of claims and contribution actions, has become recurring and serious. These conflicts are greatly intensified by the Fund's insistence on free access to all the information defense counsel has gathered in the case and on counsel's candid evaluations of that information.

The law will sometimes tolerate conflicted representation for reasons of economy or to avoid unnecessary adversity, but only with important safeguards in place. The knowledgeable consent of clients is required. The lawyer must be scrupulously fair in all dealings, and cannot benefit one client to the detriment of another.

The Fund's vision for the routine case under Wisconsin Statutes Chapter 655 is seriously deficient with respect to Wisconsin ethics law governing loyalty, confidentiality and conflicts of interest. Clearly, it deprives physicians and insurers of their right to an attorney with undivided loyalty.

Michael K. McChrystal is a Professor of Law at Marquette University Law School and a member of the State Bar Association. He has served as reporter for the State Bar of Wisconsin Committee on Professional Ethics. PIC Wisconsin, the state's largest writer of medical professional liability insurance, recently retained Mr. McChrystal to render an independent appraisal of the legal and ethical issues surrounding defense counsel and the Patients Compensation Fund.

Eating Disorders: A Weighty Issue for Clinicians and Their Patients

by Marc Kennedy, Special to WMJ

The incidence of eating disorders has increased in the last three decades or so in the United States, mainly among young women. Fueled by unrealistic images portrayed in popular culture, many adolescents and young adults long for attaining a "perfect" body. However, for a small percentage this pursuit becomes an obsession; and, when coupled with comorbid behavior, this can manifest itself as an eating disorder.

Popularized by plot lines on television "movies of the week" and the subject of numerous magazine articles in the last 20 years, eating disorders have gained a certain level of public attention. This exposure has helped bring the disease more into the open and has assisted in early recognition in some cases. This increased notoriety notwithstanding, these disorders — anorexia nervosa, bulimia and binge eating — are not recent phenomena, as earlier records describe.

In the 9th century, women — religious zealots following St. Jerome— reportedly starved themselves to the point of losing menstrual function. Richard Morton published the first medical case history of self-starvation in 1694 and described anorexia nervosa, detailing symptoms including emaciation, a refusal to gain weight, body-image distortion, hyperactivity, and a poor outcome.

Bulimia was first recognized as a singular disorder in 1940, but was described in the medical literature in the late 19th century in association with other illnesses.

Today, clinicians report seeing an increase in the disease. Many believe this is partially due to more timely recognition due to greater awareness. The earlier it is treated, the better the result, according to Muni Patel, MD, medical director of the eating disorders clinic at Waukesha Memorial Hospital.

"The longer someone suffers from the disease, the more difficult it is to alter behavior," explained Patel. "Plus, the likelihood of mortality increases. It is the only mental illness outside of suicide as the result of depression that can kill you."

The good news said Patel is that the majority of eating disorder patients respond well to therapy. The bad news is that insurance often only covers a portion of the therapy necessary to properly treat the disease.

"If all the issues are not fully addressed, relapse is possible if not probable for many with eating disorders," said Patel. "It may be expensive up front, but it will keep the patient from presenting with illnesses down the road associated with eating disorders. But they are often put in the same category as, say, marital strife, and are only allotted so much coverage by insurers."

In these cases, the underlying issues are not resolved, continued Patel.

"If the patient does not receive sufficient help in modifying behavior to avoid relapsing, he or she will repeatedly end up returning for treatment of eating disorders or the associated negative health effects."

So, it is literally a case of a policy being penny wise and pound foolish.

Causes of Eating Disorders

"Thin is in," explained Patel, referring to the fixation of an ideal body image portrayed in advertising, magazines, television and films. While such factors may exacerbate the desire to control weight, a relatively small number of people, mostly young women, ultimately develop serious clinical illness.

"Take the high-risk population for anorexia, high school girls," he said. "For them, it is one in 200. Bulimia is higher; between 2% and 5%, from ages 13 to 35.

"Girls are much more likely to develop an eating disorder, boys only account for about 5% of cases."

Patel cautioned that there is a difference between bulimic behavior and bulimic disorder.

"About 20% to 30% of young adults exhibit some aspect of bulimic behavior," he said. "This does not mean that a person suffers from a psychological disorder.

Ted Weltzin, MD

For example, many high school wrestlers, to make weight, sometimes will purge after eating, or use laxatives. But to be classified as bulimic, someone has to persist in this behavior at least twice per week over six months."

Parents can become horrified if they find that their son or daughter has exhibited some form of eating disorder behavior. But it is important to keep isolated incidents in perspective.

"There is a certain amount of visibility given to these conditions, that sometimes we create something that isn't there," according to Darold Treffert, MD, of Associated Psychiatric Consultants, in Fond du Lac. "You need to look for underlying issues other than the normal range of adolescent behavior. Most young girls flirt with anorexia during adolescence; they are concerned about weight and image. But for most, this is just a phase.

"To sort out those with real deep-seated problems takes some observation. It's important not to jump to awful conclusions based on these isolated episodes. Parents will do this sometimes. This is true of so many adolescent behaviors, for example, flirtations with the idea of suicide.

"It's important to keep those unusual eating patterns in perspective, along with other transient behaviors. But on the other hand, you can make the error of dismissing it out of hand or make the mistake in the other direction and put a label on it."

Treffert urges pediatricians and family physicians to keep things in perspective, but at the same time, be attuned to the other behaviors that might signify more extensive problems.

"When you see adolescent behavior, you want to have an index of suspicion, recognizing that there are a wide range of adolescent behaviors that are normal to an extent."

When a variety of behavioral patterns and resulting adverse presentations begin to emerge, physicians should begin to suspect that there may be something more serious than concern over not fitting into a smaller size of Gap khakis.

> *"The good news is that the majority of eating disorder patients respond well to therapy. The bad news is that insurance often only covers a portion of the therapy necessary to properly treat the disease."*
>
> *– Muni Patel, MD*

"It typically starts out with someone who wants to lose weight," said Ted Weltzin, MD, Weltzin and Associates in Baraboo. He is also an assistant clinical professor of psychiatry at the University of Wisconsin Medical School.

"After numerous attempts at dieting, even sometimes successfully, the person ends up going off-diet and over-eats, panics about the episode, and gets into the pattern of purging. Then, some get into the habit of using laxatives, over-the-counter and prescription, in dangerous amounts — up to 20-30 at one time. Sometimes, they will use diuretics as well, all in an attempt at purging."

A one-time incident should not be alarming, but persistent behavior is a harbinger of a serious disorder.

"This illness has both emotional, psychological and physical sequelae," said Weltzin. "In addition to weight obsession, the person spends an inordinate amount of the day thinking about losing weight or thinking about food. This is accompanied by high rates of depression; as many as a third have diagnosable depressive illness. Also, it can involve high rates of alcohol abuse, impulsive behavior such as shoplifting, and other self-destructive behaviors, including superficial suicide attempts."

External events often trigger the onset of an eating disorder.

"It usually starts out with a sense of dissatisfaction in their lives," explained Patel. "It can be related to academics, family relationships, or how they see themselves generally. The interesting thing is that these people are usually successful. They usually are doing everything right externally, but internally they feel emptiness. Anorexics keep saying to themselves 'if only I lost five more pounds, or 10 more pounds it would be better.' They feel this need to keep wanting to lose more weight."

However, there are profound consequences to such a prolonged and continued weight loss, he added.

"If you lose 15% to 20% of your ideal weight, there are biochemical changes in physiology. And, there are also psychological changes that help keep this vicious cycle going. This weight loss gives them a sense of high. It worsens

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the cognitive distortions about how they see themselves. At 70 pounds, they see themselves at 200 pounds. As the distortions become worse, it feeds into their need to lose weight, which intensifies the vicious cycle of low caloric intake.

"These people are perfectionists," said Patel. "They think they are either perfect or ugly, there is no in between. And, they don't see it as dichotomous thinking at all."

Weltzin adds that there are concomitant factors that make the risk of developing an eating disorder higher.

"Family history of depression and alcoholism, a history of starting to diet at an early age, depression, plus traumatic experiences, such as sexual abuse or assault, or other stresses are major risk factors," he said.

"These conditions are much more environmental than genetic. In early adolescence, they get caught up in the need to lose weight, getting hung up on looking better at a time when often one's physical characteristics are changing naturally. Typically patients report that they were fat as young teens; but when you look at their photos, it is evident that they were not. It is very common for them to greatly blow it out of proportion."

Evidence of Eating Disorders

Sufferers of eating disorders will go to great lengths to conceal their condition.

"This is a very personal experience," said Patel. "People do their best to hide it. They end up keeping it a secret for years. Parents are usually the last to know. And, sometimes doctors find out only when there is a medical problem, when something happens. Sometimes, the condition can show up in the ER, when someone comes in with an electrolyte imbalance. Unfortunately, many doctors don't recognize it as the result of an eating disorder until at a later stage when there are these medical problems."

Once someone is confronted about an eating disorder by a clinician, Weltzin said they are likely to talk about it.

"If their parents or spouse are out of the room, it will increase the likelihood," he said. "Often these are the people they have been concealing their condition from."

He added that there are some clues that can tip off a physician that a patient may be dealing with an eating disorder.

"Physical side effects generally are chronic poor nutrition," he said, "which can lead to irregular menstrual functioning, dental problems, changes in skin and hair tone and texture, and complications from lack of potassium."

Patel added that usually physicians become aware of an eating disorder in a roundabout fashion; such factors should become evident during a routine medical history.

"A common indicator is if someone reports a large weight gain or weight loss," he said. "By following up on this, you can begin to get at the root of the problem.

"Often, a doctor has first contact because a girl is not menstruating well; or that someone with GI discomfort has been abusing laxatives."

The important point here is that there needs to be follow-up beyond treating the acute condition, Patel stressed.

"Sometimes a GP or ER physician will treat the problem, then conclude that there is no life-threatening issue, and leave it at that," he said. "Once the immediate danger is over, unless there is follow-up, the patient will continue to deny that they have a problem, and denial is a big part of these disorders."

Treating Bulimia and Bingeing

"Bulimics are usually of normal weight, but are out of control with purging," said Patel. "So we develop relapse prevention strategies to help them stop bingeing. We need to stabilize their behavior pattern, until they show they can take control, by establishing a regular meal plan to help get them off this vicious cycle. Medication often helps with bulimia."

Weltzin detailed a three-pronged approach in treating this disorder.

"You look at nutritional stabilization," he said, "establishing normal eating patterns. We try to get them to eat regularly, three to four times a day, so they get the normal calories for weight maintenance. This is set at 20 calories per kilogram."

Key to this approach is incorporating 'feared foods' into this diet.

"We try to identify the foods that the person identifies as bad, for example high in fat. The problem is that these foods are shunned all together; the person eats salads with non-fat dressing, then under stress, they will binge on cake and ice cream. So we try to get them to moderately eat these binge foods."

The second tier involves psychotherapy.

"We focus on building self-esteem, and acceptance of body image, and how to tolerate stress without resorting to eating disorder behavior," said Weltzin. "We try to get bulimics to seek alternative behavior under stress. During finals in school, in the midst of difficulties in relationships or at work, their response was to go home and binge-eat. We help them realize that this does nothing to solve their problems; it just worsens their self-esteem. So, we help them find other ways of tolerating stress."

A form of psychotherapy, called cognitive behavioral therapy (CBT), has been reported as having "superior outcomes" according to a summary by James E. Mitchell, MD, University of North Dakota School of Medicine and Health Sciences.

"CBT usually contains some emphasis on meal planning and nutritional counseling, as well as self-monitoring, cognitive restructuring, and behavioral problem-solving components."

The third approach is pharmacological.

"Certain medication, for example, selective serotonin reuptake inhibitors (SSRIs), can mitigate depression, which helps to reduce binge frequency," said Weltzin.

"Used in conjunction with psychotherapy and nutritional therapy, we can greatly improve outcomes and prevent relapses."

Mitchell wrote that, "available studies also illustrate fairly dramatic reductions in the frequency of binge-eating behavior among patients while on active drugs. However, the percentage — ranging from 4% to 35% — of subjects who are abstinent at the end of treatment in most trials is disappointingly low. The one exception is an early desipramine trial by Hughes and colleagues conducted at the Mayo Clinic, which reported abstinence in 68% of patients."

Treating Anorexia

There is no pharmacological therapy for anorexia, explained Patel.

"Since it occurs in the context of depression, by treating the depression you are likely to succeed in treating the disorder. The first thing is for the patient to come to a hospital or program and do whatever it takes to get the patient closer to a healthier weight. This way we can reverse the physiological and psychological feelings that accompany starvation.

"We have a criteria for anorexic patients," added Patel. "The risk is high that if they leave a treatment program early, if they leave it before obtaining 90% of ideal weight, there is a high probability of a relapse. They need to be in some kind of active treatment program. It doesn't matter whether it is in a residential facility or as an outpatient. They still need routine care or they will eventually relapse.

Managed Care Mismanages Eating Disorders

"That's my gripe with the current system of mental health care benefit," said Patel. "If one has a serious disorder, like anorexia, the benefit level is the same as minor marital problems. In other words, the minute anorexic patients are not having problems, they are discharged. A lot of times, they are not able to cope. We end up re-admitting them knowing that they are at high risk, all we did was stabilize; we didn't successfully treat the disorder long-term.

"Of those who have an eating disorder, there is 5% mortality within five years. This increases by 1% percent for each year the person continues to suffer from the disease. Even from an insurance standpoint, if you do the job right the first time, with full treatment no matter what the expense, you can prevent the same patients from coming back again and again, or presenting with related health problems."

Patel added that the problem of eating disorders seems to be growing.

"Good studies in Scandinavia show the incidence has increased in the last 30 years. Plus, we are doing a better job in recognizing eating disorders earlier and treating it before it gets too bad. The earlier you catch it, the better the treatment results. If someone

Continued on page 37

Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults

EXECUTIVE SUMMARY

Introduction:

An estimated 97 million adults in the United States are overweight or obese, a condition that substantially raises their risk of morbidity from hypertension, dyslipidemia, Type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, and endometrial, breast, prostate, and colon cancers. Higher body weights are also associated with increases in all-cause mortality. Obese individuals may also suffer from social stigmatization and discrimination. As the second leading cause of preventable death in the United States today, overweight and obesity pose a major public health challenge.

Overweight is here defined as a body mass index (BMI) of 25 to 29.9 kg/m^2 and obesity as a BMI of ≥ 30 kg/m^2. However, overweight and obesity are not mutually exclusive, since obese persons are also overweight. A BMI of 30 is about 30 pounds overweight and equivalent to 221 pounds in a 6'0" person and to 186 pounds in one 5'6". The number of overweight and obese men and women has risen since 1960; in the last decade the percentage of people in these categories has increased to 54.9 percent of adults age 20 years or older. Overweight and obesity are especially evident in some minority groups, as well as in those with lower incomes and less education.

Obesity is a complex multifactorial chronic disease that develops from an interaction of genotype and the environment. Our understanding of how and why obesity develops is incomplete, but involves the integration of social, behavioral, cultural, physiological, metabolic and genetic factors.

While there is agreement about the health risks of overweight and obesity, there is less agreement about their management. Some have argued against treating obesity because of the difficulty in maintaining long-term weight loss and of potentially negative consequences of the frequently seen pattern of weight cycling in obese subjects. Others argue that the potential hazards of treatment do not outweigh the known hazards of being obese. The intent of these guidelines is to provide evidence for the effects of treatment on overweight and obesity. The guidelines focus on the role of the primary care practitioner in treating overweight and obesity.

Evidence-Based Guidelines

To evaluate published information and to determine the most appropriate treatment strategies that would constitute evidence-based clinical guidelines on overweight and obesity for physicians and associated health professionals in clinical practice, health care policy makers, and clinical investigators, the National Heart, Lung, and Blood Institutes Obesity Education Initiative, in cooperation with the National Institute of Diabetes and Digestive and Kidney Diseases, convened the Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults in May 1995. The guidelines are based on a systematic review of the published scientific literature found in MEDLINE from January 1980 to September 1997 of topics identified by the panel as key to extrapolating the data related to the obesity evidence model.

Evidence from approximately 394 randomized controlled trials (RCTs) was considered by the panel.

The panel is comprised of 24 members, 8 ex-officio members, and a methodologist consultant. Areas of expertise contributed to by panel members included primary care, epidemiology, clinical nutrition, exercise physiology, psychology, physiology, and pulmonary disease. There were four meetings of the full panel and two additional meetings of the executive committee comprised of the panel chair and four panel members.

The San Antonio Cochrane Center assisted the panel in the literature abstraction and in organizing the data into appropriate evidence tables. The center pretested and used a standardized 25-page form or "Critical Review Status Sheet" for the literature abstraction. Ultimately, 236 RCT articles were abstracted and the data were then compiled into individual evidence tables developed for each RCT. The data from these RCTs

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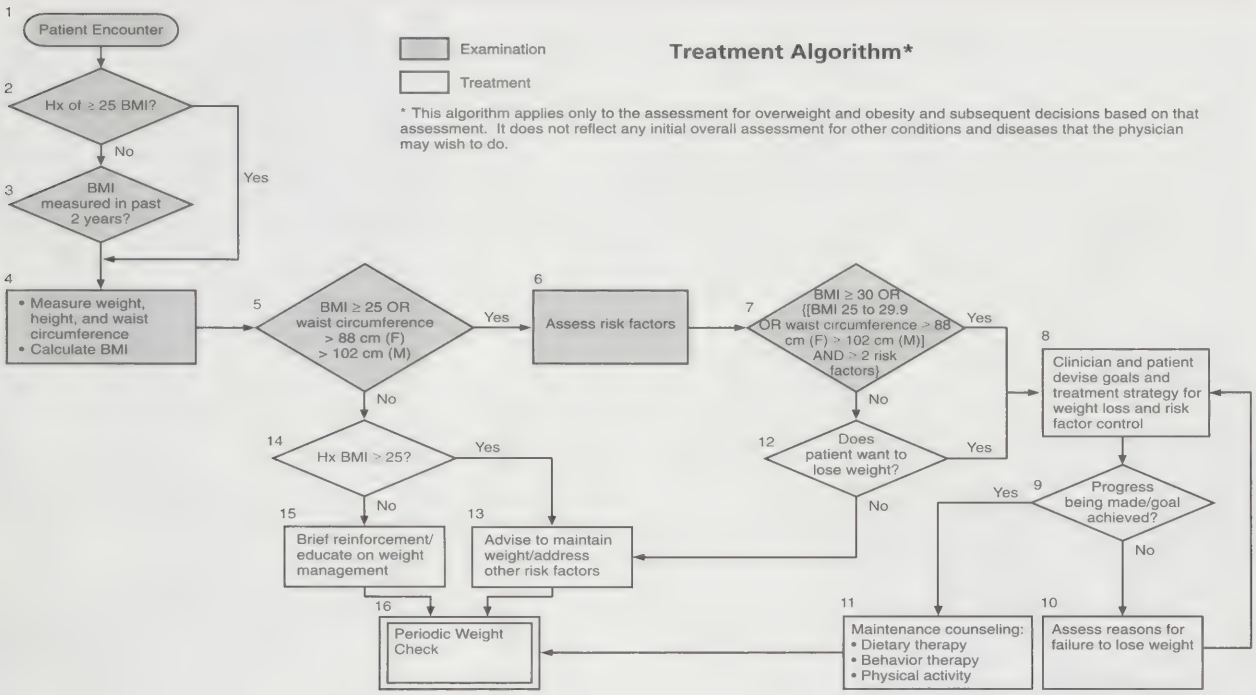

served as the basis for many of the recommendations contained in the guidelines.

The panel determined the criteria for deciding on the appropriateness of an article. At a minimum, studies had to have a time frame from start to finish of at least four months. The only exceptions were a few three-month studies related to dietary therapy and pharmacotherapy. To consider the question of long-term maintenance, studies with outcome data provided at approximately one year or longer were examined. Excluded were studies in which self-reported weights by subjects were the only indicators used to measure weight loss. No exclusions of studies were made by study size. The panel weighed the evidence based on a thorough examination of the threshold or magnitude of the treatment effect. Each evidence statement (other than those with no available evidence) and each recommendation is categorized by a level of evidence which ranges from A to D. Table ES-1 summarizes the categories of evidence by their source and provides a definition for each category.

• **Who is at Risk?** All overweight and obese adults (age 18 years of age or older) with a BMI of 25 are considered at risk. Individuals with a BMI of 25 to 29.9 are considered overweight, while individuals with a BMI ≥ 30 are considered obese. Treatment of overweight is recommended only when patients have two or more risk factors or a high waist circumference. It should focus on altering dietary and physical activity patterns to prevent development of obesity and to produce moderate weight loss. Treatment of obesity should focus on producing substantial weight loss over a prolonged period. The presence of comorbidities in overweight and obese patients should be considered when deciding on treatment options.

• **Why Treat Overweight and Obesity?** Obesity is clearly associated with increased morbidity and mortality. There is strong evidence that weight loss in overweight and obese individuals reduces risk factors for diabetes and cardiovascular disease (CVD). Strong evidence exists that weight loss reduces blood pressure in both overweight hypertensive and nonhypertensive individuals; reduces serum triglycerides and increases high-density lipoprotein (HDL)-cholesterol; and generally produces some reduction in total serum cholesterol and low-density lipoprotein (LDL)-cholesteroL Weight loss reduces blood glucose levels in overweight and obese persons with and without diabetes; and weight loss also reduces blood glucose levels and HbAlc in some patients with Type 2 diabetes. Although there have been no prospective trials to show changes in mortality with weight loss in obese patients, reductions in risk factors would suggest that development of Type 2 diabetes and CVD would be reduced with weight loss.

• **What Treatments Are Effective?** A variety of effective options exist for the management of overweight and obese patients, including dietary therapy approaches such as low-calorie diets and lower-fat diets; altering physical activity patterns; behavior therapy techniques; pharmacotherapy*; surgery; and combinations of these techniques.

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Treatment: A Costly Issue

Obesity is a major public health problem in the U.S. In the last two decades alone, the prevalence of obesity among American men and women has increased from 25% to 33%, according to data from the National Health and Nutrition Examination Surveys.

While there is agreement about the health risks associated with obesity, there traditionally has not been agreement on its management. A plethora of fad diets, weight loss plans and centers, Web sites, and books on weight management and dieting exist, all professing to be the answer for weight loss. In the medical literature as well, hundreds of articles have been published on obesity and its management.

In May 1995, the Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults was convened by the National Heart, Lung, and Blood Institute's Obesity Education Initiative with the cooperation of the National Institute of Diabetes and Digestive and Kidney Diseases. Their charge was to perform a systematic review of the published scientific literature and to determine the most appropriate treatment strategies that would constitute evidence-based clinical guidelines on overweight and obesity. Evidence from approximately 394 randomized controlled trials was considered by the panel.[1] A summary of these recommendations is included in this issue. A copy of the complete expert panel report can be reviewed or downloaded from the Internet. It is available on the NHLBI Website (http://www.nhbi.nhi.gov/nhlbi/cardio/obes/prof/guidelines/ob_gdlns.htm).

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Obesity is associated with increased risk of Type 2 diabetes, hypertension, cardiovascular disease, gall bladder disease and breast, endometrial and colon cancer, and osteoarthritis.[2] The economic costs of obesity have been documented by several authors. Direct costs attributable to the treatment of the mentioned disease states have been conservatively estimated at $51.6 billion dollars in 1995.[3] Indirect costs were also estimated. These costs represent the value of productivity lost in the workplace, caused by the morbidity and mortality due to disease associated with obesity. These indirect costs are estimated at $47.56 billion; therefore the total economic cost of obesity was estimated to be $99.2 billion in 1995.[4]

It should come as no surprise therefore, that considerable interest exists in the management and treatment of obesity. As a chronic disease, obesity requires long-term treatment. Effective treatment should address all the factors that contribute to unhealthy excess weight gain such as genetics, neurology/physiology, environmental factors, psychological factors, and psychosocial factors.

Pharmacologic treatment of obesity is not recommended by the NIH guidelines unless patients have tried to lose weight or maintain weight loss with conventional nondrug therapies and their BMI ≥ 30 without any risk factors. If the patient has two or more risk factors and a BMI ≥ 27, drug therapy can also be considered. With the voluntary market withdrawal of fenfluramine and dexfenfluramine in September 1997, only one prescription anti-obesity drug remains on the market, with several others in the development pipeline.

Meridia® (sibutramine hydrochloride monohydrate) Capsules Class CIV has been available since February 1998. It is a novel neurotransmitter reuptake inhibitor of norepinephrine and serotonin, which enhances the feeling of satiety (the feeling of fullness). Knoll Pharmaceutical Company, the drug's manufacturer, has created the Point of Change™ tailored weight management program for patients on Meridia®. Patients on Meridia® ID who enroll receive tailored information in the form of newsletters on diet (including personal menu plans), exercise, and behavior modification. Patients can enroll by calling 1-888-566-5502, through their physicians, or pharmacists.

Another drug, orlistat (Xenical®), developed by Roche, has received approval in Europe and Roche is working with the FDA to achieve approval in the U.S. Orlislat is a drug in a new class of non-systemically acting antiobesity drugs called lipase inhibitors. It acts in the gastrointestinal tract and prevents the absorption of fat by about 30%.

Both orlistat and sibutramine got considerable attention at the Eighth International Congress on Obesity, a four-day conference held in Paris August 29-September 3. Medical experts at this conference warned that obesity was rapidly becoming a problem in the developing world as well as industrialized nations and could one day rival smoking in its impact on public health.

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Table ES-1 Evidence Categories

Evidence Category	Sources of Evidence	Definition
A	Randomized controlled trials (rich body of data)	Evidence is from endpoints of well-designed RCTs (or trials that depart only minimally from randomization) that provide a consistent pattern of findings in the population for which the recommendation is made. Category A therefore requires substantial numbers of studies involving substantial numbers of participants.
B	Randomized controlled trials (limited body of data)	Evidence is from endpoints of intervention studies that include only a limited number of RCTs, post-hoc or subgroup analysis of RCTs, or meta-analysis of RCTs. In general, Category B pertains when few randomized trials exist, they are small in size, and the trial results are somewhat inconsistent, or the trials were undertaken in a population that differs from the target population of the recommendation.
C	Nonrandomized trials Observational studies	Evidence is from outcomes of uncontrolled or nonrandomized trials or from observational studies.
D	Panel Consensus Judgment	Expert judgment is based on the panel's synthesis of evidence from experimental research described in the literature and/or derived from the consensus of panel members based on clinical experience or knowledge that does not meet the above-listed criteria. This category is used only in cases where the provision of some guidance was deemed valuable but an adequately compelling clinical literature addressing the subject of the recommendation was deemed insufficient to justify placement in one of the other categories (A through C).

Continued from page 21

Clinical Guidelines

Treatment of the overweight or obese patient is a two-step process: assessment and treatment management. Assessment requires determination of the degree of overweight and overall risk status. Management includes both reducing excess body weight and instituting other measures to control accompanying risk factors.

Assessment: When assessing a patient for risk status and as a candidate for weight loss therapy, consider the patient's BMI, waist circumference, and overall risk status. Consideration also needs to be given to the patient's motivation to lose weight.

• **Body Mass Index.** The BMI, which describes relative weight for height, is significantly correlated with total body fat content. The BMI should be used to assess overweight and obesity and to monitor changes in body weight. In addition, measurements of body weight alone can be used to determine efficacy of weight loss therapy. BMI is calculated as weight (kg)/height squared (m^2). To estimate BMI using pounds and inches, use: [weight (pounds)/ height (inches)^2] x 704.5. Weight classifications by BMI, selected for use in this report, are shown in Table ES- 2.

• **Waist Circumference.** The presence of excess fat in the abdomen out of proportion to total body fat is an independent predictor of risk factors and morbidity. Waist circumference is positively correlated with abdominal fat content. It provides a clinically acceptable measurement for assessing a patient's abdominal fat content before and during weight loss treatment. The sex-specific cutoffs noted on the next page can be used to identify increased relative risk for the development of obesity-associated risk factors in most adults with a BMI of 25 to 34.9 kg/m^2:

These waist circumference cutpoints lose their incremental predictive power in patients with a BMI of ($\geq$ 35 kg/m^2 because these patients will exceed the cutpoints noted above. Table ES-4 adds the disease risk of increased abdominal fat to the disease risk of BMI. These categories denote *relative* risk, not *absolute* risk; that is, relative to risk at normal weight. They should not be equated with absolute risk, which is determined by a summation of risk factors. They relate to the need to institute weight loss therapy and do not directly define the required intensity of modification of risk factors associated with obesity.

• **Risk Status.** Assessment of a patient's absolute risk status requires examination for the presence of:

Disease conditions: established coronary heart disease (CHD), other atherosclerotic diseases, Type 2 diabetes, and sleep apnea; patients with these conditions are classified as being at very high risk for disease complications and mortality.

Other obesity-associated diseases: gynecological abnormalities, osteoarthritis, gallstones and their complications, and stress incontinence.

Cardiovascular risk factors: cigarette smoking, hypertension (systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg, or the patient is taking antihypertensive agents), high-risk LDL-cholesterol (≥160 mg/dL), low HDL-cholesterol (< 35 mg/dL), impaired fasting glucose (fasting plasma glucose of 110 to 125 mg/dL), family history of premature CHD (definite myocardial infarction or sudden death at or before 55 years of age in father or other male first-degree relative, or at or before 65 years of age in mother or other female first-degree relative), and age (men ≥ 45 years and women ≥ 55 years or postmenopausal). Patients can be classified as being at high absolute risk if they have three of the aforementioned risk factors. Patients at high absolute risk usually require clinical management of risk factors to reduce risk.

Patients who are overweight or obese often have other cardiovascular risk factors. Methods for estimating *absolute risk* status for developing cardiovascular disease based on these risk factors are described in detail in the National Cholesterol Education Program's Second Report of the Expert Panel on the Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (NCEP's ATP II) and the Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VI). The intensity of intervention for cholesterol dis-

Table ES-2
Classification of Overweight and Obesity by BMI

	Obesity Class	BMI (kg/m^2)
Underweight		< 18.5
Normal		18.5 – 24.9
Overweight		25.0 – 29.9
Obesity	I	30.0 – 34.9
	II	35.0 – 39.9
Extreme Obseity	III	≥ 40

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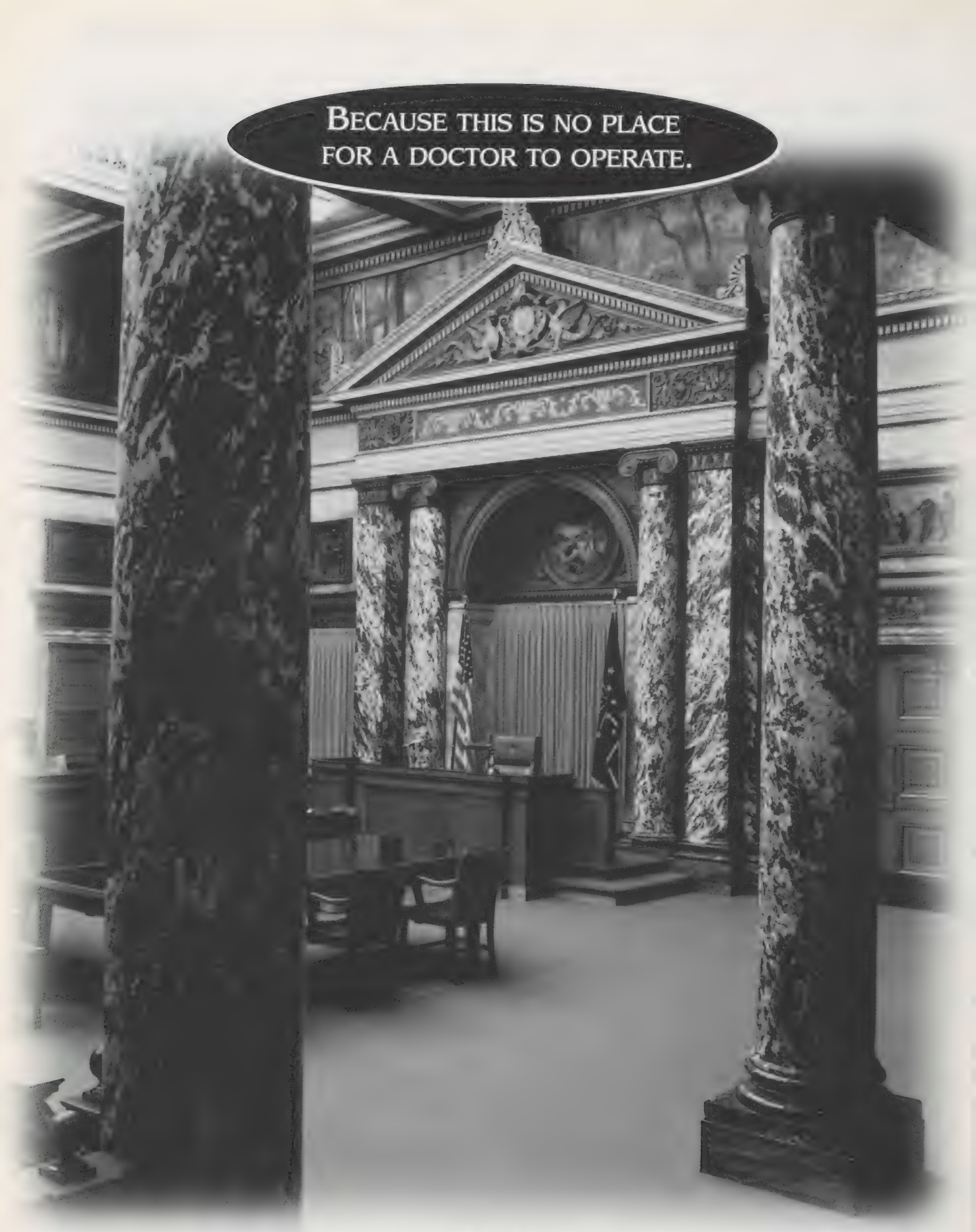

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orders or hypertension is adjusted according to the absolute risk status estimated from multiple risk correlates. These include both the risk factors listed above and evidence of end-organ damage present in hypertensive patients. Approaches to therapy for cholesterol disorders and hypertension are described in ATP II and JNC VI, respectively. In overweight patients, control of cardiovascular risk factors deserves equal emphasis as weight reduction therapy. Reduction of risk factors will reduce the risk for cardiovascular disease whether or not efforts at weight loss are successful.

Other risk factors: physical inactivity and high serum triglycerides (> 200 mg/dL). When these factors are present, patients can be considered to have incremental

High Risk

Men > 102 cm (> 40 in.)

Women > 88 cm (> 35 in.)

absolute risk above that estimated from the preceding risk factors. Quantitative risk contribution is not available for these risk factors, but their presence heightens the need for weight reduction in obese persons.

• **Patient Motivation.** When assessing the patient's motivation to enter weight loss therapy, the following factors should be evaluated: reasons and motivation for weight reduction; previous history of successful and unsuccessful weight loss attempts; family, friends, and work-site support; the patient's understanding of the causes of obesity and how obesity contributes to several diseases; attitude toward physical activity; capacity to engage in physical activity; time availability for weight loss intervention; and financial considerations. In addition to considering these issues, the health care practitioner needs to heighten a patient's motivation for weight loss and prepare the patient for treatment. This can be done by enumerating the dangers accompanying persistent obesity and by describing the strategy for clinically assisted weight reduction. Reviewing the patient's past attempts at weight loss and explaining how the new treatment plan will be different can encourage patients and provide hope for successful weight loss.

Evaluation and Treatment: The general goals of weight loss and management are: (1) at a minimum, to prevent further weight gain; (2) to reduce body weight;

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and (3) to maintain a lower body weight over the long term. The overall strategy for the evaluation and treatment of overweight and obese patients is presented in the Treatment Algorithm on page 21. This algorithm applies only to the assessment for overweight and obesity and subsequent decisions based on that assessment. It does not include any initial overall assessment for cardiovascular risk factors or diseases that are indicated.

• Goals of Weight Loss and Management.
The *initial goal* of weight loss therapy is to reduce body weight by approximately 10 percent from baseline. If this goal is achieved, further weight loss can be attempted, if indicated through further evaluation.

A *reasonable time line* for a 10 percent reduction in body weight is six months of therapy. For overweight patients with BMIs in the typical range of 27 to 35, a decrease of 300 to 500 kcal/day will result in weight losses of about 1/2 to 1 pound/week and a 10 percent loss in six months. For more severely obese patients with BMIs > 35, deficits of up to 500 to 1,000 kcal/day will lead to weight losses of about 1 to 2 pounds/week and a 10 percent weight loss in six months. Weight loss at the rate of 1 to 2 pounds/week (calorie deficit of 500 to 1,000 kcal/day) commonly occurs for up to six months. After six months, the rate of weight loss usually declines and weight plateaus because of a lesser energy expenditure at the lower weight.

Experience reveals that lost weight usually will be regained unless a weight maintenance program consisting of dietary therapy, physical activity, and behavior therapy is continued indefinitely.

After six months of weight loss treatment, efforts to maintain weight loss should be put in place. If more weight loss is needed, another attempt at weight reduction can be made. This will require further adjustment of the diet and physical activity prescriptions.

For patients unable to achieve significant weight reduction, prevention of further weight gain is an important goal; such patients may also need to participate in a weight management program.

• Strategies for Weight Loss and Weight Maintenance.
Dietary Therapy: A diet that is individually planned and takes into account the patient's overweight status in order to help create a deficit of 500 to 1,000 kcal/day should be an integral part of any weight loss program. Depending on the patient's risk status, the low-calorie diet (LCD) recommended should be consistent with the NCEP s Step I or

Step II Diet (see page 74 of the guidelines). Besides decreasing saturated fat, total fats should be 30 percent or less of total calories. Reducing the percentage of dietary fat alone will not produce weight loss unless total calories are also reduced. Isocaloric replacement of fat with carbohydrates will reduce the percentage of calories from fat but will not cause weight loss. Reducing dietary fat, along with reducing dietary carbohydrates, usually will be needed to produce the caloric deficit needed for an acceptable weight loss. When fat intake is reduced, priority should be given to reducing saturated fat to enhance lowering of LDL-cholesterol levels. Frequent contacts with the practitioner during dietary therapy help to promote weight loss and weight maintenance at a lower weight.

Physical Activity: An increase in physical activity is an important component of weight loss therapy, although it will not lead to substantially greater weight loss over six months. Most weight loss occurs because of decreased caloric intake. Sustained physical activity is most helpful in the prevention of weight regain. In addition, it has a benefit in reducing cardiovascular and diabetes risks beyond that produced by weight reduction alone. For most obese patients, exercise should be initiated slowly, and the intensity should be increased gradually. The exercise can be done all at one time or intermittently over the day. Initial activities may be walking or swimming at a slow pace. The patient can start by walking 30 minutes for three days a week and can build to 45 minutes of more intense walking at least five days a week. With this regimen, an additional expenditure of 100 to 200 calories per day can be achieved. All adults should set a long-term goal to accumulate at least 30 minutes or more of moderate-intensity physical activity on most, and preferably all, days of the week. This regimen can be adapted to other forms of physical activity, but walking is particularly attractive because of its safety and accessibility. Patients should be encouraged to increase "every day" activities such as taking the stairs instead of the elevator. With time, depending on progress and functional capacity, the patient may engage in more strenuous activities. Competitive sports, such as tennis and volleyball, can provide an enjoyable form of exercise for many, but care must be taken to avoid injury. Reducing sedentary time is another strategy to increase activity by undertaking frequent, less strenuous activities.

Behavior Therapy: Strategies, based on learning principles such as reinforcement, that provide tools for overcoming barriers to compliance with dietary therapy and/or increased physical activity are helpful in achieving weight loss and weight maintenance. Specific strategies include self-monitoring of both eating habits and physical activity, stress management, stimulus control, problem solving, contingency management, cognitive restructuring, and social support.

Combined Therapy: A combined intervention of behavior therapy, an LCD, and increased physical activity provides the most successful therapy for weight loss and weight maintenance. This type of intervention should be maintained for at least six months before considering pharmacotherapy.

Pharmacotherapy: In carefully selected patients, appropriate drugs can augment LCDs, physical activity, and behavior therapy in weight loss. Weight loss drugs that have been approved by

Table ES-4
Classification of Overweight and Obesity by BMI, Waist Circumference and Associated Disease Risks

	BMI (kg/m²)	Obesity Class	Disease Risk* Relative to Normal Weight and Waist Circumference: Men ≤ 102 cm (≤ 40 in.) Women ≤ 88 cm (≤ 35 in.)	Disease Risk* Relative to Normal Weight and Waist Circumference: > 102 cm (> 40 in.) > 88 cm (> 35 in.)
Underweight	< 18.5		–	–
Normal**	18.5 – 24.9		–	–
Overweight	25.0 – 29.9		Increased	High
Obesity	30.0 – 34.9	I	High	Very High
	35.0 – 39.9	II	Very High	Very High
Extreme Obesity	≥ 40	III	Extremely High	Extremely High

*Disease risk for Type 2 diabetes, hypertension, and CVD.
** Increased waist circumference can also be a marker for increased risk even in persons of normal weight.

the FDA for long-term use can be useful adjuncts to dietary therapy and physical activity for some patients with a BMI of ≥ 30 with no concomitant risk factors or diseases, and for patients with a BMI of ≥ 27 with concomitant risk factors or diseases. The risk factors and diseases considered important enough to warrant pharmacotherapy at a BMI of 27 to 29.9 are hypertension, dyslipidemia, CHD, Type 2 diabetes, and sleep apnea. Continual assessment by the physician of drug therapy for efficacy and safety is necessary.

At the present time, sibutramine is available for long-term use. (Note: FDA approval of orlistat is pending a resolution of labeling issues and results of Phase III trials.) It enhances weight loss modestly and can help facilitate weight loss maintenance. Potential side effects with drugs, nonetheless, must be kept in mind. With sibutramine, increases in blood pressure and heart rate may occur. Sibutramine should not be used in patients with a history of hypertension, CHD, congestive heart failure, arrhythmias, or history of stroke. With orlistat, fat soluble vitamins may require replacement because of partial malabsorption. All patients should be carefully monitored for these side effects.

Weight Loss Surgery: Weight loss surgery is one option for weight reduction in a limited number of patients with clinically severe obesity, i.e., BMIs ≥ 40 or ≥ 35 with comorbid conditions. Weight loss surgery should be reserved for patients in whom efforts at medical therapy have failed and who are suffering from the complications of extreme obesity. Gastrointestinal surgery (gastric restriction [vertical gastric banding] or gastric bypass [Roux-en Y]) is an intervention weight loss option for motivated subjects with acceptable operative risks. An integrated program must be in place to provide guidance on diet, physical activity, and behavioral and social support both prior to and after the surgery.

• Adapt Weight Loss Programs To Meet the Needs of Diverse Patients. Standard treatment approaches for overweight and obesity must be tailored to the needs of various patients or patient groups. Large individual variation exists within any social or cultural group; furthermore, substantial overlap among subcultures occurs within the larger society. There is, therefore, no "cookbook" or standardized set of rules to optimize weight reduction with a given type of patient. However, to be more culturally sensitive and to incorporate patient characteristics in obesity treatment programs: consider and adapt the setting and staffing for the program; consider how the obesity treatment program integrates into other aspects of patient health care and self care; and expect and allow for program modifications based on patient responses and preferences.

The issues of weight reduction after age 65 involve such questions as: does weight loss reduce risk factors in older adults; are there risks associated with obesity treatment that are unique to older adults; and does weight reduction prolong the lives of older adults? Although there is less certainty about the importance of treating overweight at older ages than at younger ages, a clinical decision to forgo obesity treatment in older adults should be guided by an

evaluation of the potential benefit of weight reduction and the reduction of risk for future cardiovascular events.

In the obese patient who strokes, smoking cessation is a major goal of risk factor management. Many well-documented health benefits accompany smoking cessation, but a major obstacle to cessation has been the attendant weight gain observed in about 80 percent of quitters. This weight gain averages 4.5 to 7 pounds, but in 13 percent of women and 10 percent of men, weight gain exceeds 28 pounds. Weight gain that accompanies smoking cessation has been quite resistant to most dietary, behavioral, or physical activity interventions.

The weight gained with smoking cessation is less likely to produce negative health consequences than would continued smoking. For this reason, smoking cessation should be strongly advocated regardless of baseline weight. Prevention of weight gain through diet and physical activity should be stressed. For practical reasons, it may be prudent to avoid initiating smoking cessation and weight loss therapy simultaneously. If weight gain ensues after smoking cessation, it should be managed vigorously according to the guidelines outlined in this report. Although short-term weight gain is a common side effect of smoking cessation, this gain does not rule out the possibility of long-term weight control.

SUMMARY OF EVIDENCE-BASED RECOMMENDATIONS

A—Advantages of Weight Loss

The recommendation to treat overweight and obesity is based not only on evidence that relates obesity to increased mortality but also on RCT evidence that weight loss reduces risk factors for disease. Thus, weight loss may not only help control diseases worsened by obesity, it may also help decrease the likelihood of developing these diseases. The panel reviewed RCT evidence to determine the effect of weight loss on blood pressure and hypertension, serum/plasma lipid concentrations, and fasting blood glucose and fasting insulin. Recommendations focusing on these conditions underscore the advantages of weight loss.

1. Blood Pressure

To evaluate the effect of weight loss on blood pressure and hypertension, 76 articles reporting RCTs were considered for inclusion in these guidelines. Of the 45 accepted articles, 35 were lifestyle trials and 10 were pharmacotherapy trials. There is strong and consistent evidence from these lifestyle trials in both overweight hypertensive and nonhypertensive patients that weight loss produced by lifestyle modifications reduces blood pressure levels. Limited evidence exists that decreases in abdominal fat will reduce blood pressure in overweight nonhypertensive individuals, although not independent of weight loss, and there is considerable evidence that increased aerobic activity to increase cardiorespiratory fitness reduces blood pressure (independent of weight loss). There is also suggestive evidence from randomized trials that weight loss produced by most weight loss medications, except for sibutramine, in combination with adjuvant lifestyle modifications will be accompanied by reductions in blood pressure. Based on a review of the evidence from the 45 RCT blood pressure articles, the panel makes the following recommendation:

> *Weight loss is recommended to lower elevated blood pressure in overweight and obese persons with high blood pressure. Evidence Category A.*

2. Serum/Plasma Lipids

Sixty-five RCT articles were evaluated for the effect of weight loss on serum/plasma concentrations of total cholesterol, LDL-cholesterol, very low-density lipoprotein (VLDL)-cholesterol, triglycerides, and HDL-cholesterol. Studies were conducted on individuals over a range of obesity and lipid levels. Of the 22 articles accepted for inclusion in these guidelines, 14 RCT articles examined lifestyle trials while the remaining eight articles reviewed pharmacotherapy trials. There is strong evidence from the 14 lifestyle trials that weight loss produced by lifestyle modifications in overweight individuals is accompanied by reductions in serum triglycerides and by increases in HDL-cholesterol. Weight loss generally produces some reductions in serum total cholesterol and LDL-cholesterol. Limited evidence exists that a decrease in abdominal fat correlates with improvements in lipids, although the effect may not be independent of weight loss, and there is strong evidence that increased aerobic activity to increase cardiorespiratory fitness favorably affects blood lipids, particularly if accompanied by weight loss. There is suggestive evidence from the eight randomized pharmacotherapy trials that weight loss produced by weight loss medications and adjuvant lifestyle modifications, including caloric restriction and physical activity, does not result in consistent effects on blood lipids. The following recommendation is based on the review of the data in these 22 RCT articles:

> *Weight loss is recommended to lower elevated levels of total cholesterol, LDL - cholesterol and triglycerides, and to raise low levels of HDL-cholesterol in overweight and obese*

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persons with dyslipidemia. Evidence Category A.

3. Blood Glucose

To evaluate the effect of weight loss on fasting blood glucose and fasting insulin levels, 49 RCT articles were reviewed for inclusion in these guidelines. Of the 17 RCT articles accepted, nine RCT articles examined lifestyle therapy trials and eight RCT articles considered the effects of pharmacotherapy on weight loss and subsequent changes in blood glucose. There is strong evidence from the nine lifestyle therapy trials that weight loss produced by lifestyle modification reduces blood glucose levels in overweight and obese persons without diabetes, and weight loss reduces blood glucose levels and HbAlc in some patients with Type 2 diabetes; there is suggestive evidence that decreases in abdominal fat will improve glucose tolerance in overweight individuals with impaired glucose tolerance, although not independent of weight loss; and there is limited evidence that increased cardiorespiratory fitness improves glucose tolerance in overweight individuals with impaired glucose tolerance or diabetes, although not independent of weight loss. In addition, there is suggestive evidence from randomized trials that weight loss induced by weight loss medications does not appear to improve blood glucose levels any better than weight loss through lifestyle therapy in overweight persons both with and without Type 2 diabetes. Based on a full review of the data in these 17 RCT articles, the panel makes the following recommendation:

Weight loss is recommended to lower elevated blood glucose levels in overweight and obese persons with Type 2 diabetes. Evidence Category A.

B–Measurement of Degree of Overweight and Obesity

Patients should have their BMI and levels of abdominal fat measured not only for the initial assessment of the degree of overweight and obesity, but also as a guide to the efficacy of weight loss treatment. Although there are no RCTs that review measurements of overweight and obesity, the panel determined that this aspect of patient care warranted further consideration and that this guidance was deemed valuable. Therefore, the following four recommendations that are included in the Treatment Guidelines were based on nonrandomized studies as well as clinical experience.

1. BMI To Assess Overweight and Obesity

There are a number of accurate methods to assess body fat (e.g., total body water, total body potassium, bioelectrical impedance, and dual energy X-ray absorptiometry), but no trial data exist to indicate that one measure of fatness is better than any other for following overweight and obese patients during treatment. Since measuring body fat by these techniques is often expensive and is not readily available, a more practical approach for the clinical setting is the measurement of BMI; epidemiological and observational studies have shown that BMI provides an acceptable approximation of total body fat for the majority of patients. Because there are no published studies that compare the effectiveness of different measures for evaluating changes in body fat during weight reduction, the panel bases its recommendation on expert judgment from clinical experience:

Practitioners should use the BMI to assess overweight and obesity. Body weight alone can be used to follow weight loss, and to determine efficacy of therapy. Evidence Category C.

2. BMI To Estimate Relative Risk

In epidemiological studies, BMI is the favored measure of excess weight to estimate relative risk of disease. BMI correlates both with morbidity and mortality; the relative risk for CVD risk factors and CVD incidence increases in a graded fashion with increasing BMI in all population groups. Moreover, calculating BMI is simple, rapid, and inexpensive, and can be applied generally to adults. The panel, therefore, makes this recommendation:

The BMI should be used to classify overweight and obesity and to estimate relative risk of disease compared to normal weight. Evidence Category C.

3. Assessing Abdominal Fat

For the most effective technique for assessing abdominal fat content, the panel considered measures of waist circumference, waist-to-hip ratio (WHR), magnetic resonance imaging (MRI), and computed tomography. Evidence from epidemiological studies shows waist circumference to be a better marker of abdominal fat content than WHR, and that it is the most practical anthropometric measurement for assessing a patient's abdominal fat content before and during weight loss treatment. Computed tomography and MRI are both more accurate but impractical for routine clinical use. Based on evidence that waist circumference is a better marker than WHR—and taking into account that the MRI and computer tomography techniques are expensive and not readily available for clinical practice—the panel makes the following recommendation:

The waist circumference should be used to assess abdominal fat content. Evidence Category C.

4. Sex-Specific Measurements

Evidence from epidemiological

studies indicates that a high waist circumference is associated with an increased risk for Type 2 diabetes, dyslipidemia, hypertension, and CVD. Therefore, the panel judged that sex-specific cutoffs for waist circumference can be used to identify increased risk associated with abdominal fat in adults with a BMI in the range of 25 to 34.9. These cutpoints can be applied to all adult ethnic or racial groups. On the other hand, if a patient is very short, or has a BMI above the 25 to 34.9 range, waist cutpoints used for the general population may not be applicable. Based on the evidence from nonrandomized studies, the panel makes this recommendation:

For adult patients with a BMI of 25 to 34.9 kg/m^2, sex-specific waist circumference cutoffs should be used in conjunction with BMI to identify disease risks. Evidence Category C.

C–Goals for Weight Loss

The general goals of weight loss and management are to reduce body weight, to maintain a lower body weight over the long term, and to prevent further weight gain. Evidence indicates that a moderate weight loss can be maintained over time if some form of therapy continues. It is better to maintain a moderate weight loss over a prolonged period than to regain from a marked weight loss.

1.. Initial Goal of Weight Loss from Baseline

There is strong and consistent evidence from randomized trials that overweight and obese patients in well-designed programs can achieve a weight loss of as much as 10 percent of baseline weight. In the diet trials, an average of 8 percent of baseline weight was lost. Since this average includes persons who did not lose weight, an individualized goal of 10 percent is reasonable. The panel, therefore, recommends that:

The initial goal of weight loss therapy should be to reduce body weight by approximately 10 percent from baseline. With success, further weight loss can be attempted if indicated through further assessment. Evidence Category A.

2. Amount of Weight Loss

Randomized trials suggest that weight loss at the rate of 1 to 2 pounds/week (calorie deficit of 500 to 1,000 kcal/day) commonly occurs for up to six months.

Weight loss should be about 1 to 2 pounds/week for a period of six months, with the subsequent strategy based on the amount of weight lost. Evidence Category B.

D–How To Achieve Weight Loss

The panel reviewed relevant treatment strategies designed for weight loss that can also be used to foster long-term weight control and prevention of weight gain. The consequent recommendations emphasize the potential effectiveness of weight control using multiple interventions and strategies, including dietary therapy, physical activity, behavior therapy, pharmacotherapy, and surgery, as well as combinations of these strategies.

1. Dietary Therapy

The panel reviewed 86 RCT articles to determine the effectiveness of diets on weight loss (including LCDs, very low-calorie diets [VLCDs], vegetarian diets, American Heart Association dietary guidelines, the NCEP's Step I diet with caloric restriction, and other low-fat regimens with varying combinations of macronutrients). Of the 86 articles reviewed, 48 were accepted for inclusion in these guidelines. These RCTs indicate strong and consistent evidence that an average weight loss of 8 percent of initial body weight can be obtained over three to 12 months with an LCD and that this weight loss effects a decrease in abdominal fat; and, although lower-fat diets without targeted caloric reduction help promote weight loss by producing a reduced caloric intake, lower-fat diets with targeted caloric reduction promote greater weight loss than lower-fat diets alone. Further, VLCDs produce greater initial weight losses than LCDs (over the long term of >1 year, weight loss is not different than that of the LCDs). In addition, randomized trials suggest that no improvement in cardiorespiratory fitness as measured by VO_2 max appears to occur in obese adults who lose weight on LCDs alone without physical activity. The following recommendations are based on the evidence extracted from the 48 accepted articles:

LCDs are recommended for weight loss in overweight and obese persons. Evidence Category A. Reducing fat as part of an LCD is a practical way to reduce calories. Evidence Category A.

Reducing dietary fat alone without reducing calories is not sufficient for weight loss. However, reducing dietary fat, along with reducing dietary carbohydrates, can facilitate caloric reduction. Evidence Category A.

A diet that is individually planned to help create a deficit of 500 to 1,000 kcal/day should be an integral part of any program aimed at achieving a weight loss of 1 to 2 pounds/week. Evidence Category A.

2. Physical Activity

Effects of Physical Activity on Weight Loss

Twenty-three RCT articles were reviewed to determine the effect of physical activity on weight loss, abdominal fat (measured by waist circumference), and changes in cardiorespiratory fitness (VO_2 max). Thirteen of these articles were accepted for inclusion in

these guidelines. A review of these articles reveals strong evidence that physical activity alone, i.e., aerobic exercise, in obese adults results in modest weight loss and that physical activity in overweight and obese adults increases cardiorespiratory fitness, independent of weight loss. Randomized trials suggest that increased physical activity in overweight and obese adults reduces abdominal fat only modestly or not at all, and that regular physical activity independently reduces the risk for CVD. The panel's recommendation on physical activity is based on the evidence from these 13 articles:

Physical activity is recommended as part of a comprehensive weight loss therapy and weight control program because it: (1) modestly contributes to weight loss in overweight and obese adults (Evidence Category A), (2) may decrease abdominal fat (Evidence Category B), (3) increases cardiorespiratory fitness (Evidence Category A), and (4) may help with maintenance of weight loss (Evidence Category C).

Physical activity should be an integral part of weight loss therapy and weight maintenance. Initially moderate levels of physical activity for 30 to 45 minutes, three to five days a week, should be encouraged. All adults should set a long-term goal to accumulate at least 30 minutes or more of moderate intensity physical activity on most, and preferably, all days of the week. Evidence Category B.

Effects of Physical Activity and Diet on Weight Loss (Combined Therapy)

Twenty-three RCT articles were reviewed to determine the effects on body weight of a combination of a reduced-calorie diet with increased physical activity. Fifteen of these articles were accepted for inclusion in the guidelines. These articles contain strong evidence that the combination of a reduced-calorie diet and increased physical activity produces greater weight loss than diet alone or physical activity alone, and that the combination of diet and physical activity improves cardiorespiratory fitness as measured by VO_2 max in overweight and obese adults when compared to diet alone. The combined effect of a reduced calorie diet and increased physical activity seemingly produced modestly greater reductions in abdominal fat than either diet alone or physical activity alone, although it has not been shown to be independent of weight loss. The panel's following recommendations are based on the evidence from these articles:

The combination of a reduced calorie diet increased physical activity is recommended since it produces weight loss that may also result in decreases in abdominal fat and increases in cardiorespiratory fitness. Evidence Category A.

3. Behavior Therapy

Thirty-six RCTs were reviewed to evaluate whether behavior therapy provides additional benefit beyond other weight loss approaches, as well as to compare various behavioral techniques. Of the 36 RCTs reviewed, 22 were accepted. These RCTs strongly indicate that behavioral strategies to reinforce changes in diet and physical activity in obese adults produce weight loss in the range of 10 percent over four months to one year. In addition, no one behavior therapy appeared superior to any other in its effect on weight loss; multimodal strategies appear to work best and those interventions with the greatest intensity appear to be associated with the greatest weight loss. Long-term follow-up of patients undergoing behavior therapy shows a return to baseline weight for the great majority of subjects in the absence of continued behavioral intervention. Randomized trials suggest that behavior therapy, when used in combination with other weight loss approaches, provides additional benefits in assisting patients to lose weight short-term, i.e., one year (no additional benefits are found at three to five years). The panel found little evidence on the effect of behavior therapy on cardiorespiratory fitness. Evidence from these articles provided the basis for the following recommendation:

Behavior therapy is a useful adjunct when incorporated into treatment for weight loss and weight maintenance. Evidence Category B.

There is also suggestive evidence that patient motivation is a key component for success in a weight loss program. The panel, therefore, makes the following recommendation:

Practitioners need to assess the patient's motivation to enter weight loss therapy; assess the readiness of the patient to implement the plan and then take appropriate steps to motivate the patient for treatment. Evidence Category D.

4. Summary of Lifestyle Therapy

There is strong evidence that combined interventions of an LCD, increased physical activity, and behavior therapy provide the most successful therapy for weight loss and weight maintenance. The panel makes the following recommendation:

Weight loss and weight maintenance therapy should employ the combination of LCD's, increased physical activity and behavior therapy. Evidence Category A.

5. Pharmacotherapy

A review of 44 pharmacotherapy RCT articles provides strong evidence that pharmacological thera-

py (which has generally been studied along with lifestyle modification, including diet and physical activity) using dexfenfluramine, sibutramine, orlistat, or phentermine/fenfluramine results in weight loss in obese adults when used for six months to one year. Strong evidence also indicates that appropriate weight loss drugs can augment diet, physical activity, and behavior therapy in weight loss. Adverse side effects from the use of weight loss drugs have been observed in patients. As a result of the observed association of valvular heart disease in patients taking fenfluramine and dexfenfluramine alone or in combination, these drugs have been withdrawn from the market. Weight loss drugs approved by the FDA for long-term use may be useful as an adjunct to diet and physical activity for patients with a BMI of ≥ 30 with no concomitant obesity-related risk factors or diseases, as well as for patients with a BMI of ≥ 27 with concomitant risk factors or diseases; moreover, using weight loss drugs singly (not in combination) and starting with the lowest effective doses can decrease the likelihood of adverse effects. Based on this evidence, the panel makes the following recommendation:

Weight loss drugs approved by the FDA may be used as part of a comprehensive weight loss program, including dietary therapy and physical activity for patients with a BMI of ≥ 30 with no concomitant obesity-related risk factors or diseases, and for patients with a BMI of ≥ 27 with concomitant obesity-related risk factors or diseases. Weight loss drugs should never be used without concomitant lifestyle modifications. Continual assessment of drug therapy, for efficacy and safety is necessary. If the drug is efficacious in helping the patient to lose and/or maintain weight loss and there are no serious adverse effects, it can be continued. If not, it should be discontinued. Evidence Category B.

6. Weight Loss Surgery

The panel reviewed 14 RCTs that examined the effect of surgical procedures on weight loss; eight were deemed appropriate. All of the studies included individuals who had a BMI of 40 kg/m^2 or above, or a BMI of 35 to 40 kg/m^2 with comorbidity. These trials provide strong evidence that surgical interventions in adults with clinically severe obesity, i.e., BMIs ≥ 40 or ≥ 35 with comorbid conditions, result in substantial weight loss, and suggestive evidence that lifelong medical surveillance after surgery is necessary. Therefore, the panel makes the following recommendation:

Weight loss surgery is an option for carefully selected patients with clinically severe obesity (BMI ≥ 40 or ≥ 35 with comorbid conditions) when less invasive methods of weight loss have failed and the patient is at high risk for obesity-associated morbidity or mortality. Evidence Category B.

E–Goals For Weight Loss Maintenance

Once the goals of weight loss have been successfully achieved, maintenance of a lower body weight becomes the challenge. Whereas studies have shown that weight loss is achievable, it is difficult to maintain over a long period of time (three to five years). In fact, the majority of persons who lose weight, once dismissed from clinical therapy, frequently regain it—so the challenge to the patient and the practitioner is to maintain the weight loss. Successful weight reduction thus depends on continuing a maintenance program on a long-term basis. In the past, obtaining the goal of weight loss has been considered the end of weight loss therapy. Observation, monitoring, and encouragement of patients who have successfully lost weight should be continued long term. The panel's recommendations on weight loss maintenance are derived from RCT evidence as well as nonrandomized and observational studies.

1. Weight Maintenance Phase

RCTs from the Behavior Therapy section above suggest that lost weight usually will be regained unless a weight maintenance program consisting of dietary therapy, physical activity, and behavior therapy is continued indefinitely. Drug therapy in addition may be helpful during the weight maintenance phase. The panel also reviewed RCT evidence that considered the rate of weight loss and the role of weight maintenance. These RCTs suggest that after six months of weight loss treatment, efforts to maintain weight loss are important. Therefore, the panel recommends the following:

After successful weight loss, the likelihood of weight loss maintenance is enhanced by a program consisting of dietary therapy; physical activity and behavior therapy which should be continued indefinitely. Drug therapy can also be used. However, drug safety and efficacy beyond one year of total treatment have not been established. Evidence Category B.

A weight maintenance program should be a priority after the initial six months of weight loss therapy. Evidence Category B.

Strong evidence indicates that better weight loss results are achieved with dietary therapy when the duration of the intervention is at least six months. Suggestive evidence also indicates that during dietary therapy, frequent contacts between professional counselors and patients promote weight loss and maintenance.

Therefore, the panel recommends the following:

The literature suggests that weight loss and weight maintenance therapies that provide a greater frequency of contacts between the patient and the practitioner and are provided over the long term should be utilized whenever possible. This can lead to more successful weight loss and weight maintenance. Evidence Category C.

F–Special Treatment Groups

The needs of special patient groups must be addressed when considering treatment options for overweight and obesity. The guidelines focus on three such groups including smokers, older adults, and diverse patient populations.

1. Smokers

Cigarette smoking is a major risk factor for cardiopulmonary disease. Because of its attendant high risk, smoking cessation is a major goal of risk-factor management. This aim is especially important in the overweight or obese patient, who usually carries excess risk from obesity-associated risk factors. Thus, smoking cessation in these patients becomes a high priority for risk reduction. Smoking and obesity together apparently compound cardiovascular risk, but fear of weight gain upon smoking cessation is an obstacle for many patients. Therefore, the panel recommends that:

All smokers, regardless of their weight status, should quit smoking. Evidence Category A. Prevention of weight gain should be encouraged and if weight gain does occur, it should be treated through dietary therapy; physical activity, and behavior therapy; maintaining the primary emphasis on the importance of abstinence from smoking. Evidence Category C.

2. Older Adults

The general nutritional safety of weight reduction at older ages is of concern because restrictions on overall food intake due to dieting could result in inadequate intake of protein or essential vitamins or minerals. In addition, involuntary weight loss indicative of occult disease might be mistaken for success in voluntary weight reduction. These concerns can be alleviated by providing proper nutritional counseling and regular body weight monitoring in older persons for whom weight reduction is prescribed. A review of several studies indicates that age alone should not preclude treatment for obesity in adult men and women. In fact, there is evidence from RCTs that weight reduction has similar effects in improving cardiovascular disease risk factors in older and younger adults. Therefore, in the panel's judgment:

A clinical decision to forgo obesity treatment in older adults should be guided by an evaluation of the potential benefits of weight reduction for day-to-day functioning and reduction of the risk of future cardiovascular events, as well as the patient's motivation for weight reduction. Care must be taken to ensure that any weight reduction program minimizes the likelihood of adverse effects on bone health or other aspects of nutritional status. Evidence Category D.

3. Diverse Patient Populations

Standard obesity treatment approaches should be tailored to the needs of various patients or patient groups. It is, however, difficult to determine from the literature how often this occurs, how specific programs and outcomes are influenced by tailoring, and whether it makes weight loss programs more effective. After reviewing two RCTs, four cross-sectional studies, and four intervention studies, as well as additional published literature on treatment approaches with diverse patient populations, the panel recommends the following:

The possibility that a standard approach to weight loss will work differently in diverse patient populations must be considered when setting expectations about treatment outcomes. Evidence Category B.

*As of September 1997, the Food and Drug Administration (FDA) requested the voluntary withdrawal from the market of dexfenfluramine and fenfluramine due to a reported association between valvular heart disease and the use of dexfenfluramine or fenfluramine alone or combined with phentermine. The use of these drugs for weight reduction, therefore, is not recommended in this report. Sibutramine is approved by FDA for long-term use. It has limited but definite effects on weight loss and can facilitate weight loss maintenance. (Note: FDA approval for orlistat is pending a resolution of labeling issues and results of Phase III trials.)

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with the disorder is identified within six months, the likelihood of successful outcome is much greater — changing the pattern before it becomes part of their lifestyle."

"The crisis now is in treatment, and people having problems paying for it," said Weltzin. "It is costly to treat people in recovery from eating disorders. It is more extensive than treating depression and anxiety alone, people who respond to limited intervention. Treatment of eating disorders doesn't lend itself well to a prepayment system."

The result, said Weltzin, is that many people get ineffective treatment.

"This increases the chance of chronicity," he said. "They will end up with chronic depression, and eating disorders. It's a real dilemma. Family members end up paying a lot of money for treating these illnesses. We just saw someone yesterday who needs residential treatment but can't afford it. So we're working with the person as an outpatient, the chances of it being effective are less.

"People who stop bingeing and vomiting go through withdrawal. The chances of them doing so on their own are low. The first couple of weeks are difficult. Another couple of weeks reduces their craving, their bingeing and laxatives. They do much better in residential treatment."

If they can get it. Otherwise, it is likely a vicious circle of treatment and release, relapsing into bulimia and bingeing and depression and ill-health, until they get readmitted into a program for short-term treatment. Then they are released again; they'll do better for a while, but unless the root causes of the psychological problems leading to the eating disorders are successfully addressed, the pattern is likely to repeat itself.

A literal case of the old adage, "*an ounce of prevention is worth a pound of cure.*"

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Surgical Therapy of Parkinson's Disease

Ken Madden, MD, PhD, Brad Hiner, MD, John Neal, MD

INTRODUCTION

Parkinson's Disease is a degenerative cerebral disorder resulting in declining release of dopamine from brainstem nuclei. This neurochemical defect results in imbalance of other modulatory centers of the brain on motor function, with some nuclei becoming relatively overactive (disinhibitied) and others underactive. Such distorted regulation leads to "positive" patient symptoms such as tremor and rigidity, as well as "negative" symptoms such as bradykinesia (paucity of movement). The mainstay of treatment of Parkinson's Disease is substitutive pharmacotherapy with dopamine precursors or agonists. Such treatment usually results in years of effective control of symptoms. However, this progressive disease not uncommonly leads to refractory symptoms and medication-induced dyskinetic movements that may themselves become intolerable to patients. At that point, neurosurgical techniques may offer substantial benefit in primary reduction of symptoms and allowing greater tolerance of medications. Some of these techniques are controversial and still experimental, such as fetal tissue transplantation, pallidal stimulation, and subthalamic nucleus stimulation. Adrenal tissue transplantation has been all but abandoned as being too risky and largely ineffective. The most commonly performed and effective surgical procedures currently available for Parkinson's Disease and other tremor disorders are pallidotomy and deep brain stimulation (DBS) of the thalamus.

Pallidotomy is an ablative, irreversible procedure targeting the inner lamina of the globus pallidus (GPi). This disinhibited center appears to play a substantial role in generating the positive symptoms of Parkinson's Disease. As most commonly performed, the GPi contralateral to the most prominent symptoms is first targeted radiographically, then mapped out with electophysiologic recordings through an inserted microelectrode, then ablated with a thermal lesion.

DBS involves implantation of a stimulating electrode within the ventrointermediate nucleus (VIM) of the thalamus, a center that plays a substantial role in the propagation of tremor. Again, the nucleus contralateral to the most symptomatic side is first targeted radiographically, with mapping then accomplished by microelectrode recording and physiologic responses to intraoperative stimulation. The implanted electrode modulates the activity of this nucleus via electrical pulses delivered to the electrode from a subcutaneous, battery-operated, externally-programmable stimulator.

Pallidotomy and DBS of thalamus are offered in a limited number of medical centers in the world. We report our experience with these techniques at Marshfield Clinic/St. Joseph's Hospital, a tertiary referral center in central Wisconsin.

PATIENT SELECTION AND EVALUATION

Careful screening of patients with Parkinson's Disease and, in the case of DBS, essential tremor, was accomplished prior to consideration of surgical therapy. The ideal patient for pallidotomy is under age 80, with little cognitive impairment, and with unilateral predominance of symptoms. The ideal patient for DBS is also under 80, with tremor predominant Parkinson's Disease or other disorder in which tremor is the primary disabling feature. All patients undergo full neurological assessments prior to surgery, including neurologic examinations, formal visual field testing, and directed neuropsychological testing. Any identified dysfunction of speech or swallow is also quantified with formal testing pre-operatively. Patients with Parkinson's Disease undergo standard test batteries for the disorder, including the United Parkinson's Disease Rating Scale (UPDRS), Hoehn and Yahr functional score, and Schwab and England functional score, to serve as a baseline against which surgical outcomes are compared. The UPDRS includes four subsections (mentation, behavior and mood; activities of daily living; motor examination; and complications of therapy) with a maximum score of 147 (severe disability). The Schwab and England scale measures percent independence with respect to everyday activities of daily living (such as doing chores), and the Hoehn-Yahr score is a means of staging disease severity on a scale of 0-5 (5 being bedridden or wheelchair bound). A copy of these scales is available upon request.

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Table 1- Surgical Outcome of Pallidotomy

		Baseline (Mean)	Follow-Up (Mean)	Change (Mean)	Relative Improvement
A.D.L.		20.7	14.2	6.5	31%
Motor	On	16.6	11.7	4.9	30%
	Off	29.3	20.0	9.3	32%
Global	On	46.3	30.1	16.2	35%
	Off	59.0	36.7	22.3	38%
Hoehn & Yahr	On	2.45	1.58	.87	36%
	Off	3.84	2.32	1.52	40%
Schwab & England		65.5	85.8	20.3	31%

Mean scores for standardized assessment scales for Parkinson's Disease in the first 37 pallidotomies. Activities of Daily Living (ADL) and Motor are subset scores of the Unified Parkinson's Disease Rating Scale, and Global is the combined score of all four subsets. "On" scores represent assessment periods during which patients were optimized on medication, and "Off" scores represent assessments during which medications were withheld.

SURGICAL METHODS

Patients are initially placed in a stereotactic head frame (COMPASS International, Inc., Rochester MN) with four fixation points and nine fiducial points of reference for imaging. Both computed tomography and magnetic resonance imaging are then utilized to target either the GPi or VIM, and to plan electrode trajectories. Local anesthesia is administered for scalp incision and burr hole placement, and antihypertensives are used as necessary to maintain normotension. Sedatives and general anesthetics are avoided to allow the alert patient to describe any sensory perturbations and cooperate with frequent neurologic assessments throughout each procedure. Micro-electrode recordings are performed[1] to characterize isolated neuronal activity and thereby map the target area for optimal placement of the pallidotomy lesion or DBS electrode implantation. At this stage, the patient's physiologic responses to either a reversible thermal lesion (pallidotomy) or stimulation using standard parameters (DBS) is assessed to again judge the optimacy of the selected target. When symptomatic improvement appears maximal without associated adverse symptoms or signs, the permanent pallidotomy lesion is placed or the permanent DBS electrode is implanted. Typically, patients are hospitalized the night before their surgical procedure and discharged the following day.

RESULTS

We have recently completed our 46th pallidotomy and sixth DBS implantation at our medical center.* Table I details formal clinical outcomes as measured by follow-up functional scales in our first 20 pallidotomy patients. All scales utilized defined relative clinical improvement after the procedure of 30%-40%. All patients thus far implanted with DBS electrodes have had substantial reduction in tremor.

Surgical complications have been minimal. Several patients experienced post-operative sedation delaying their discharge, presumed related to radiographically-demonstrable pneumocephalus. Two patients have experienced transient contralateral facial weakness after pallidotomy, resolving within 48 hours. One patient suffered speech

*Note: The numbers are 70 and 15 as of 10/1/98.

Table 2- Predictable outcomes of pallidotomy for Parkinson's Disease

Features of Parkinson's Disease most likely to improve after pallidotomy.

1) Abnormal movements related to Parkinson's medications (dyskinesias) or painful cramping of the hands or feet (dystonia)
2) Tremor
3) Rigidity or excessive "stiffness" of muscles
4) Freezing during attempted movements
5) Slowness of movement, including walking
6) Soft speech

Features of Parkinson's Disease less likely to improve after pallidotomy.

1) Instability and falling
2) Severe speech dysfunction
3) Impaired autonomic function (i.e., dizziness or faintness due to low blood pressure; impaired or excessive sweating; impaired bowel or bladder function)
4) Memory disorder

apraxia, resolving several weeks after pallidotomy. One death has occurred in the follow-up period, unrelated to the surgical procedure. There have been no instances of limb weakness, numbness, language dysfunction, cognitive impairment, or visual field disturbance with these procedures.

Microelectrode recording was quite beneficial in refining the surgical target, particularly with pallidotomy. In addition to defining the dorsal-ventral dimensions of the GPi at the final electrode trajectory, replotting of the planned trajectory occurred in 62% of pallidotomies due to suboptimal neuronal characteristics recorded at the initial target identified by neuroimaging. The greatest number of trajectories performed in a single patient before the optimal target was found was nine. The mean distance between the radiographically identified target and the midpoint of the GPi in our first 37 pallidotomies was 3.9 mm.

DISCUSSION

Neurosurgical interventions such as pallidotomy and DBS of thalamus represent important adjunctive therapies for intractable movement disorders. Our clinical data are similar to outcomes reported by other centers experienced in these techniques.[2] Pallidotomy can significantly improve all cardinal features of Parkinson's Disease, and DBS of thalamus can substantially diminish disabling tremor associated with Parkinson's and other disorders. Like other centers, we recommend these procedures only for those patients that have failed medical management, or who are experiencing intolerable side effects of medication.

While dramatic improvements not uncommonly result, these procedures do not represent cures for these movement disorders. Rather, they should be considered attempts to minimize symptoms. Frank discussions with patients and their families are recommended pre-operatively to avoid unrealistic expectations of surgery. All symptoms are not equally affected by these surgeries. Certain parkinsonian symptoms are more amenable to pallidotomy than others (Table 2). Medication-induced dyskinesias are nearly universally improved, as are bradykinesia and rigidity, with some improvement also being noted ipsilateral to the lesion. Tremor is less improved by pallidotomy, prompting our recommendation for DBS implantation in those patients with tremor-predominant Parkinson's disease. In contrast, DBS is quite helpful in alleviating tremor, but does little in improving other parkinsonian features.

Some controversy exists regarding the need for, and value of, micro-electrode recording during these stereotactic-driven surgical procedures. A recent survey of 28 centers performing pallidotomies reported that microelectrode recording was utilized in half, with others relying on imaging studies and stimulation techniques.[3] The pathologic neuronal activity in these disorders is restricted to small nuclear centers. The VIM of thalamus measures only 3-mm in thickness[4] and the margin of error for ablation of pathologic activity within the GPi is estimated at 2-3-mm.[5] Neuro-imaging alone can result in deviations of 5-mm or more from the pathologic center as identified by microelectrode recordings.[6] We confirmed the value of micro-electrode recording in these surgeries, which at our center resulted in refinement of the surgical target in nearly all cases and adjustments of the final target averaging nearly 4-mm from that identified by neuro-imaging.

In summary, our experience at Marshfield Clinic/St. Joseph's Hospital with both pallidotomy and DBS of thalamus has mirrored that of other medical centers, which report these techniques to be safe and effective for treatment of intractable movement disorders. We believe these procedures require a team approach, involving coordinated care from neurologists, neurophysiologists, neurosurgeons, neuropsychologists and speech pathologists to ensure appropriate patient selection and maximize safety. Our experience also supports the value of micro-electrode recording for accurate lesioning or electrode placement.

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Traumatic Asphyxia Following Stadium Crowd Surge: Stadium Factors Affecting Outcome

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ABSTRACT

Background. Stadium crowd surges frequently occur following major athletic events. A recent crowd surge injured more than 80 persons by trampling and/or crushing. This incident was reviewed to identify injury patterns consistent with crush-related injury. In addition, the incident was reviewed to determine which stadium policy and design factors may have potentiated this event.

Methods. A recent crowd surge occurred following a college football game. This resulted in 86 people being transported to the University of Wisconsin and other area hospitals. All charts were reviewed to evaluate patient outcomes. The stadium was examined as were security system video tapes to evaluate stadium factors that contributed to this event. Current policies were obtained through the university sports administration.

Results. Of 86 patients transported for evaluation of stadium-related injuries, 10 were treated for traumatic asphyxia. Other injuries requiring hospital admission included musculo-skeletal trauma in two patients and one grade II liver injury. Six others were admitted overnight for observation. Several stadium factors were identified that contributed to the event, and appropriate changes in crowd control policies and stadium design were instated to prevent recurrence.

Conclusions. This report details the largest single report of traumatic asphyxia second to the England Hillsborough disaster. Several stadium factors were identified that resulted in crush-related injury. Cooperative review and modification of stadium policies and design may prevent such events in the future.

INTRODUCTION

Stadium field storming after major athletic events is frequent. Fortunately, these crowd surges are rarely disastrous events with life-threatening injuries. However, if key factors are in place, including game excitement, crowd density, and faulty stadium design (e.g., fixed barricades), the potential for devastating consequences related to traumatic asphyxia (TA) exists. The largest athletic event resulting in TA-related injury and death was the Hillsborough tragedy in 1989.[1] Ninety-five deaths occurred related to TA as a result of a stadium crowd surge against fixed barricades following a stadium fire.

A recent crowd surge during a college football game resulted in injury to 86 people, including 10 cases of TA. This report reviews this group of TA patients. In addition, this unfortunate event provided a unique opportunity to review the circumstances that culminated in life-threatening crush injuries following a stadium crowd surge. Stadium design factors and crowd control policies were reviewed to identify key elements that contributed to the event. Appropriate changes in crowd control policies and stadium design are proposed as a result of this study.

MATERIALS AND METHODS

In October 1993, a crowd surge occurred at Camp Randall Stadium (capacity 67,800) following a University of Wisconsin versus University of Michigan football game. Hundreds of students rushed the field, and 86 were trampled or crushed against a steel fence and required transport to area hospitals. Initial assessment and triage at the stadium resulted in the transport of the most critically injured patients to the University of Wisconsin Hospital (UW). All other patients were taken to area hospitals.

All charts were reviewed and complete follow-up was achieved in all patients requiring hospitalization. TA was defined in those with: cervico-facial cyanosis, facial petechiae, and subconjuctival hemorrhage; or loss of consciousness.

Information regarding specific contributing factors such as stadium policy and design was obtained from several sources. These included direct on-site inspection and evaluation of the scene by two authors (Birnbaum, Harms),

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Figure 1. Fixed barricades, now toppled after the crowd surge.

discussion with the University of Wisconsin Sports Administration, and review of stadium security video tapes.

RESULTS

The onset of the crowd surge occurred approximately five minutes before the completion of the game. As the student section rushed the field, the upper rows of students compressed into the lower levels that were blocked by a steel fence. (Fig. 1) The seriousness of the event was recognized approximately two minutes after completion of the game, and attempts were made to decompress the crowd onto the field. These efforts were severely restricted by the fixed barricades and by the pile of victims at the lower level of the student section.

Following the initial unpinning and extraction at the stadium site, 86 people were deemed sufficiently injured as to require transport to area hospitals. Sixty-nine were treated and released and 17 (20%) required admission. Of the 17 patients admitted, 15 (88%) were female and the mean age was 19 years (range 18 to 22).

There were 10 patients with TA; three were resuscitated and intubated at the stadium. Two additional unconscious patients were promptly intubated upon arrival to UW. The other five patients with TA regained consciousness prior to emergency department evaluation; three of these were admitted for observation and two were discharged home. Three additional patients were admitted to UW, two with musculoskeletal trauma and one with a grade II liver injury (AAST-OIS, liver[2]). An additional six students with minor injuries were admitted overnight to area hospitals for observation.

The following is a summary of one of the more severely injured patients: A.G. is a 21-year-old woman trampled in the crowd surge. She was evaluated by on-site paramedical personnel and found to be pulseless and had no spontaneous respirations. Cardiopulmonary resuscitation was initiated and the patient's airway was secured by endotracheal intubation. She was transported promptly to UW.

Evaluation in the emergency department revealed a heart rate of 138 beats per minute and systolic blood pressure of 80-mm Hg. The diagnosis of a right-sided tension pneumothorax was made and a chest tube was placed. Intravenous access was obtained, resuscitation was instituted with lactated Ringer's, and the patient remained hemodynamically stable throughout the remainder of her hospitalization. The initial arterial blood gas analysis revealed a pH of 6.80, pCO2 of 140-mm Hg and PO2 of 337-mm Hg. The oxygen saturation was 98%. No additional injuries were evident on thorough examination.

Initial neurological evaluation demonstrated bilateral sluggish pupils, and a Glasgow Coma Scale score of 3. A computed tomographic scan of the head was consistent with possible early anoxic brain injury. An intracranial pressure monitor was placed, and the initial pressure was 25-mm Hg. The patient was monitored in the trauma intensive care unit. Within eight hours the patient

Table 1. Clinical Characteristics Of Intubated Patients With Traumatic Asphyxia

Age (yr.)	Sex	GCS	ICP (mmHg)	Outcome	Follow-up (months)
22	F	3	25	normal mild PTSD	10
19	F	3	11	headaches normal	5 10
18	F	3	7	normal	9
19	F	6	15	normal	11
20	F	9	6	normal	8

F: Female
GCS: Initial Glasgow Coma Scale score
ICP: Intracranial pressure
PTSD: post-traumatic stress disorder

Table 2. Post Crowd Surge Stadium and Policy Changes

	Pre Crowd Surge	Post Crowd Surge
Paramedic teams (#)	5	7
Backup personnel	No	Yes
Independent radio frequency	No	Yes
Bag check for alcohol	No	Yes
General admission policy	Yes	No
Fixed barricades	Yes	No
Fence height (feet)	3	7 (with breakaway hinges)
Seating	Full	Removed first three rows

demonstrated spontaneous movement. No osmotic agents were required for control of intracranial pressure. Her neurologic recovery progressed rapidly resulting in extubation within 48-hours. She was discharged from the hospital one week after the injury. Full neurologic recovery occurred with no long-term neurological sequelae at follow-up 10 months after the incident.

All patients with TA were women. The five patients requiring endotracheal intubation were successfully extubated within 48-hours and discharged home by hospital day six. Table 1 summarizes the initial neurologic assessments and outcomes of these five patients. Transitory brachioplexopathy was noted in two (40%); however, all symptoms resolved before discharge.

Three non-intubated patients with TA were observed overnight and then discharged. Three additional patients were admitted to UW for musculo-skeletal trauma (n=2), and liver injury (n=1). Six other patients were admitted to area hospitals overnight for observation. All of these patients were treated conservatively and were discharged home with no sequelae.

At the time of the stadium incident, there were five paramedic teams on site, and one physician located in a central control station. An unknown number of additional physicians, surgeons and paramedical personnel assisted in the initial triage and management at the stadium. Transport times from the incident to emergency department arrival averaged 38 minutes (range 35-79 min.). Communication among the paramedic teams on site, the 911 control, and area hospitals was hampered by saturation of the radio frequency.

A review of stadium factors that may have predisposed to crush injury used a post-disaster review session, on-site evaluation of the accident scene, and review of stadium policies with the University of Wisconsin Sports Authority. The most obvious causative stadium design factor was the presence of fixed barricades at the bottom of the student section of the stadium. (figure 1) The fixed barricade prevented the crowd surge from decompressing onto the field and was most responsible for the resulting crush injuries. The distance between the first row of seats and the fixed barricade was thought to be too small to allow fast egress from the area and contributed to the development of crush injury.

The stadium policy that most contributed to the incident was the general admission policy for students. General admission increased crowd density in this area as compared to the remainder of the stadium. Several policies and stadium design features were modified after the event to prevent recurrence. (Table 2).

DISCUSSION

Review of this unfortunate stadium crowd surge identified key elements that culminated in life-threatening crush injury and traumatic asphyxia. Several stadium design factors and crowd control policies contributed to the event. Subsequent changes in crowd control policies and stadium design factors are proposed. Most importantly, all stadiums should be evaluated for the presence of fixed barricades, and these should be removed or modified with breakaway hinges to prevent life-threatening crush injury.

The syndrome of TA includes cranial cyanosis, subconjuctival hemorrhage, and facial petechiae and edema. The original description is credited to Ollivier, who reported the composite of symptoms in 1837 resulting from crush injuries in revolutionary Paris.[3] The basic mechanism of TA is thought to be acute, severe venous hypertension that develops after thoracic crush injury.[4] The morbidity and mortality are related to the duration and severity of the thoracic compression and to the high incidence of associated injuries. The most concerning aspects of TA are the neurologic abnormalities; however long-term neurologic sequelae are rare.[5] Full neurologic recovery is possible with prompt restoration of ventilatory support and correction of systemic hypoxia. Similarly, there were no serious long-term neurologic deficits in our patients. This may be related to the presence of skilled medical personnel on site who performed rapid intubation of the most severely injured. Although the five intubated patients with TA had intracranial pressure (ICP) monitors placed, there were no significant elevations of ICP that required treatment with osmotic agents or hyperventilation. ICP monitors were clearly not beneficial in this series and should probably be discouraged unless there is overt evidence of increased ICP.

Medical care in stadiums has been found to be deficient as recently as 1986.[6] Although the UW stadium policies had provisions for emergency medical care, several deficiencies were discovered during this event. Published recommendations for providing prehospital medical care at mass gatherings are limited; however, Spaite et al. developed a model for prehospital stadium care.[7] This model was adapted to the UW stadium. Paramedic coverage was increased to provide two paramedics per 10,000 spectators. An additional 170 ushers also have basic life support capabilities and provide initial care until paramedic arrival. Scheduled paramedic drills assess response times to each sector of the stadium during crowded conditions. Additional policy changes were made as described (Table 2). The concept of a spirited student section was upheld; however, the student section was made smaller, general admission was abolished, and alcohol prevention efforts were substantially improved.

The presence of fixed barricades was clearly the major factor implicated in the crush injury and TA. As the crowd surge occurred, the students were unable to decompress onto the field, and the lateral exits were too small to accommodate the large number of people. All field level barricades were modified so that they will break with the weight of the crowd and allow unexpected crowd surges to decompress onto the field.

CONCLUSION

This report details the largest series of traumatic asphyxia related to crowd surge since the Hillsborough stadium tragedy of 1989 in which 95 spectators were killed.[1] Several stadium factors were identified that resulted in crush related injury and traumatic asphyxia. Fixed barricades are particularly dangerous and should be removed in stadiums and other places with mass gatherings. Cooperative review and modification of stadium policy and design may prevent such events in the future.

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Never on a Saturday (or a Sunday): The Case Against Using Weekend Urine Specimens to Assess Arsenic Exposure

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ABSTRACT

The Wisconsin Department of Health and Family Services Bureau of Public Health recently investigated two cases of suspected arsenic poisoning. These cases involved four adults whose urinary arsenic levels ranged from 340 to 1485 ug/L (normal 0-30 ug/L). These findings were initially interpreted as evidence of an ongoing exposure to a toxic form of arsenic, however follow-up investigations determined that all of the urine specimens had been collected on a weekend and that each of these individuals had consumed fish within 48-hours of urine collection. Most of the fish was consumed at "Friday night fish fries" which are a popular tradition at many local restaurants. Urine samples collected after these individuals eliminated fish from their diets contained normal arsenic levels. This report suggests the need for laboratories to differentiate non-toxic forms of arsenic that are present in fish and seafood products from other species of this element. Until more specific analytical methods become available, patients should be instructed to omit fish and seafood from their diets for several days prior to collecting urine for arsenic analysis. In addition, elevated urinary arsenic levels should be interpreted cautiously and exposure to toxic forms should be confirmed before a diagnosis of arsenic poisoning is entertained.

INTRODUCTION

Exposure to toxic forms of arsenic is a common environmental and occupational health concern. Because arsenic is a naturally-occurring element, it can be found in all environmental media. The U.S. Department of Health and Human Services has estimated that an average adult ingests about 50 ug of arsenic each day with most of this coming from dietary sources. Intake rates can vary substantially from person-to-person and from day-to-day. For example, daily intakes as high as 1000 ug can occur in localized areas where drinking water is drawn from aquifers that are rich in arsenic-containing sulfidic ores.[1] In addition, a single serving of shrimp, lobster, or oysters can contain several milligrams of arsenic, although most of this is methylated and therefore relatively low in toxicity.[2] This natural variability in arsenic exposure makes interpretation of a single urinary arsenic value difficult. This problem is made even more complex by the fact that most laboratory analyses do not differentiate toxic forms of arsenic from the detoxified forms found in fish and seafood.

The Wisconsin Bureau of Public Health recently investigated two cases of confirmed arsenic exposure. These cases involved four factory workers who were found to have urinary arsenic concentrations ranging from 340 to 1485 ug/L (normal range 0-30). None of these individuals had an identifiable source of occupational exposure to arsenic. During interviews it was learned that each of them had consumed at least one fish meal 12 to 36 hours prior to urine collection. Our investigation of these incidents concluded that the initial laboratory findings were most likely caused by a transient elevation in urinary arsenic output following ingestion of marine fish.

METHODS

Total arsenic levels in urine, hair, and drinking water samples were analyzed using atomic absorption spectrophotometry. All dietary and occupational exposure information was collected using personal or telephone interviews.

Knobeloch and Anderson are with the Wisconsin Department of Health and Family Services and Korthof is with the Waukesha County Health Department.

RESULTS

Case Report 1

The Wisconsin Bureau of Public Health was contacted by a representative of the Department of Natural Resources regarding a resident's request to have drinking water at her home and workplace analyzed for arsenic. Although both water supplies had been tested previously and found to be low in arsenic, the resident's physician had suggested additional testing after diagnostic tests confirmed an elevated urinary arsenic level of 943 ug per 24 hours (normal < 50 ug/24 hrs). The physician suspected that chronic arsenic exposure was causing the woman's symptoms of mouth soreness, fatigue, and muscle pain.

During a telephone interview, this 58-year old woman indicated that she ate very little fish or shellfish and denied using dietary supplements or folk remedies. A review of materials used at the factory where she and her husband were employed failed to identify potential sources of arsenic exposure. Analysis of the water supplies at their home and workplace found no detectable arsenic in either supply (limit of detection = 0.06 ug/L). However, a 24-hr urine specimen collected from the husband two weeks after his wife's sample was collected contained 970 ug of arsenic. Thus, the couple's daily arsenic output was essentially the same at 943 and 970 ug per 24 hours.

In an attempt to determine the source of this couple's exposure to arsenic, the county health department inspected their home and conducted a detailed interview. During the home visit, which took place on a Thursday evening, dietary histories, single-void urine specimens, and hair samples were collected from both individuals. Dietary information collected during the visit focused on foods that were prepared in the home including a variety of home-canned garden vegetables, home-made salsa, and frozen meats. As shown in Table 1, arsenic levels in the urine and hair specimens were within normal limits. Based on this information it was concluded that the couple's arsenic exposure was intermittent and involved a form that does not accumulate in hair.

Because these findings were strongly suggestive of an exposure to "fish arsenic" the couple was asked specifically about their consumption of fish and seafood. At this time it was learned that they dined at a local restaurant's all-you-can-eat style "fish fry" almost every Friday night and that both of their initial urine samples had been collected on a Saturday or Sunday following a Friday evening meal of deep-fried cod. To determine whether this fish was the primary source of their exposure to arsenic the couple agreed to collect two additional urine samples. The first of these was collected on a Friday morning after they had refrained from eating any fish or seafood for seven days. That evening they ate fried cod at their favorite restaurant. Post-fish urine samples were collected the following day. Results from this experiment confirmed that a single restaurant meal of cod resulted in a significant elevation in their urinary arsenic levels (Table 1).

CASE REPORT II

Two employees at a factory that manufactured cleaning products were asked to submit urine specimens for testing after a mercury spill occurred in their work area. Although their urine mercury levels were within normal limits, the laboratory reported elevated arsenic levels in both workers (see Table 2). These results were initially interpreted as an indication of possible occupational or environmental exposure to arsenic although arsenic was not used in this facility and no other sources could be identified. During our review of this incident it was noted that both urine specimens had been collected on a Saturday. In an effort to rule out fish as a potential source of arsenic exposure, it was suggested that the plant nurse request dietary information from these men. Dietary histories confirmed that both men had eaten fish at local "fish fries" the evening before urine collection. In addition, one man had eaten fish for lunch on Friday. Follow-up urine specimens collected after these workers eliminated fish and seafood from their diets for five days were low in arsenic suggesting that fish ingestion was responsible for the initial findings.

DISCUSSION

These case reports demonstrate the need for laboratories to differentiate toxic forms of arsenic from much less hazardous organic forms, such as arsenobetaine, that are present in marine fish and seafood. Although only one of the subjects described above had any clinical symptoms, the laboratory findings for both of these incidents were initially interpreted as evidence of a toxic exposure. Local officials involved in Case I were so concerned about the possibility of an intentional poisoning or an imminent environmental hazard that they considered requesting assistance from law enforcement. Fortunately, followup testing revealed the source of the couple's exposure before the case was turned over to criminal investigators.

Arsenic is an essential trace element that is

Table 1. Measured arsenic levels in Case I

Specimen	Woman	Man	Normal	Units
24-hr $Urine_{(initial)}$	340 (943)	775 (970)	0-30 (50)	ug/L (ug/24 hrs)
$Hair_{(home\ visit)}$	< 0.1	< 0.1	< 0.5	ug/g
$Urine_{(home\ visit)}$	11	27	0-30	ug/L
$Urine_{(pre\text{-}fish)}$	9	12	0-30	ug/L
$Urine_{(post\text{-}fish)}$	171	765	0-30	ug/L

Table 2. Measured arsenic levels in Case II

Specimen	51-yr old Male	46-yr old Male	Normal Range	Units
$Urine_{(initial)}$	1485	434	0-30	ug/L
$Urine_{(followup)}$	< 10	< 10	0-30	ug/L

found in many foods. The highest concentrations are usually associated with marine products. Two national surveys of commercial fish and shellfish have detected arsenic levels ranging from 1 to 30 ug/g (ppm) wet weight.[3,4] Although seafood is the most important source of dietary arsenic exposure, approximately 80 to 99 % of the arsenic from this source is present in an organic form called arsenobetaine [$As(CH_3)_3(CH_2)COOH$] which is essentially nontoxic.[2] Arsenobetaine is formed as a result of a series of detoxification reactions that are carried out in the marine environment. Marine bacteria are capable of converting inorganic arsenic to mono- and dimethylated forms which are further detoxified by fish and shellfish.

The mean total dietary arsenic intake in the U.S. has been estimated to be about 50 ug/day.[5] However, a single 250 gram (approx. 8 oz.) serving of fish containing as little as 3 ug/g (ppm) arsenic would provide an arsenic intake of 750 ug. A larger serving portion or higher concentration of arsenic would increase this dose. Since methylated arsenic has a biological half-life of less than 20 hrs,[5] a 24-hour urine specimen collected the day after a fish meal can easily contain more than 500 micrograms of arsenic. Although this level greatly exceeds the "normal" range, it does not reflect a clinically significant exposure. Analytical methods that can differentiate organic and inorganic forms of arsenic are expensive and may not be offered by some laboratories. Until these tests are more widely available, patients should be advised to eliminate fish and seafood from their diets for several days before collecting a urine specimen for analysis. Even when this precaution has been taken, elevated urinary arsenic levels must be interpreted cautiously since dietary supplements prepared from marine products such as seaweed or oyster shells can also contain significant levels of organic arsenic.

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Proceedings from the 1997 Wisconsin State American College of Physicians Associates Meeting

Frank Graziano, MD, Editor

On September 12 and 13, 1997, the Associates to the State of Wisconsin American College of Physicians (ACP) Associates Meetings presented posters and vignettes as part of the Wisconsin State ACP Annual Scientific meeting. Individuals who presented were residents from the five residency programs in the State: Gundersen Clinic, Marshfield Clinic, Medical College of Wisconsin, Mt. Sinai Hospital, and the University of Wisconsin Hospital and Clinics.

These presentations have become a highlight of our State ACP meeting. So that all may appreciate the quality of our Internal Medicine residents and the quality of care given by these residents in our Wisconsin residency programs, the full text presentations for the poster and vignette sessions held at the Associates part of the meeting are presented below. Through the cooperation of the *Wisconsin Medical Journal* we will publish these presentations yearly, however, there is nothing like the lively medical discussion these posters and vignettes produce at the ACP meeting.

THYROTOXIC PERIODIC PARALYSIS

Sharon Cline, MD, (Associate), James Cerletty, MD, Medical College of Wisconsin

Case: A 27-year-old white male presented with sudden onset of bilateral lower extremity paralysis. The evening prior to the event, he consumed several alcoholic beverages and complained of generalized weakness but no loss of strength. The next morning he was able to move his legs but was unable to bear weight. Upon arrival to the Emergency Department he was only able to contract the muscles in his legs. The paralysis rapidly progressed to involve the abdominal muscles and proximal upper extremities and he was no longer able to initiate urination. He denied any loss of sensation, difficulty breathing or recent viral illness. However, he complained of recent palpitations, tremors and a 19-pound weight loss over the previous two weeks.

His examination was significant for symmetric motor weakness affecting the lower extremities, and the proximal muscles more than the distal muscles. The rest of the neurological exam was intact. Laboratory studies revealed a potassium of 1.8 TSH less than 0.03 and FTI of 4.9 (normal 1.4-4.0). The patient's potassium was supplemented and he was then started on methimazole with complete resolution of his symptoms. The patient's presenting complaints, physical examination, laboratory findings and response to treatment, is diagnostic of thyrotoxic periodic paralysis.

Discussion: Thyrotoxic Periodic Paralysis (TPP) is a rare complication of hyperthyroidism. It is seen predominantly in Asian males and can be exacerbated by a high carbohydrate diet, alcohol consumption and a prolonged period of rest after vigorous exercise. These activities increase the sodium-potassium ATPase pump, causing an intracellular shift of potassium and thus a paralytic attack. However, the only definitive treatment is to achieve a euthyroid state by treating the hyperthyroidism.

PHEOCHROMOCYTOMA – AN UNUSUAL PRESENTATION AS NAUSEA IN THE SHOWER

Grace Devadas, MD, (Associate), John L. Olson, MD, Frank Guzowski, MD, Marshfield Clinic/St. Joseph's Hospital, Marshfield, WI

A 32-year-old white female presented with a six-month history of episodic morning nausea and severe retching with posterior cervical pain for a period of five minutes while in the shower. The rest of the day she remained symptom free. She was under treatment for panic attacks with alprazolam (for her current symptoms). She was otherwise in good health except for a history of nephrolithiasis in 1994.

On examination her blood pressure was 120/72 and pulse 70 bpm. The remainder of her physical exam was normal. Evaluations included an ultrasound of the abdomen, which revealed a large left adrenal tumor, confirmed by CT scan. Plasma norepinephrine was 1117 picograms/ml (70-750) epinephrine 98 picograms/ml (0-110) and dopamine 41 picograms/ml (<30), correlating with 24-hour urine VMA results of 52.4 mg/24 hr (0-7.2).

She was evaluated for MEN type II a & b, neurofibromatosis and Von Hippel Lindau Syndrome. During the hospitalization she manifested intermittent episodes of hypertension. Patient underwent left adrenalectomy after standard pre-operative preparation. Histopathology confirmed the diagnosis of pheochromocytoma. Patient did not experience recurrent symptoms post-operatively.

Pheochromocytoma are often sought, but rarely found, with an incidence of less than 0.1% of hypertensive patients. Pheochromocytoma presents in 60% of the patients as sustained hypertension and in 56% of patients with paroxysmal symptoms; the most common being headache (80%). Paroxysms are often triggered by any movement that shifts the abdominal viscera. Also, unlike the normal adrenal medulla, a pheochromocytoma is not innervated, and hence catecholamine release is not initiated by neural impulses. Changes in blood flow, however, can initiate catecholamine release. In our patient, hot showers resulting in peripheral vasodilation and decreased splanchnic blood flow may have been the cause for tumor stimulation and her symptoms.

COCAINE INDUCED ANTERIOR SPINAL ARTERY INFARCTION

Brian Erdman, MD (Associate), Sinai Samaritan Medical Center

Cocaine induced anterior spinal artery infarction has not been cited in previous literature although the cerebrovascular events related to cocaine are well established. Spinal cord infarction is a rare cause of acute paraplegia and is most commonly associated with aortic atherosclerosis. Less common causes include trauma, hypotension, mass effect, myelitis, cardioembolic disease, iodinated contrast neurotoxicity, aorto-iliac procedures, arteriovenous malformations, and decompression sickness. Hereditary causes of anterior spinal artery infarction have also been hypothesized. Presented here is a case report of a 45-year-old daughter of an acquired paraplegic who presented with acute onset paralysis and sensory losses in both lower extremities after smoking crack cocaine. The diagnosis of anterior spinal artery infarction in an otherwise healthy cocaine abuser suggests causality. The prevalence of anterior spinal infarction is extremely low such that its occurrence in two first-degree family members would suggest a familial tendency.

A CASE REPORT OF NEUROSARCOIDOSIS

Renee Leiknes, MD (Associate), Sinai, Samaritan Medical Center

A 34-year-old female presents to the emergency department following new onset of seizure activity. The past medical history is significant for cocaine abuse and head trauma six years previously, which resulted in fracture of the right facial bone. Since that time, she has complained of headaches, mostly on the right side, with intermittent blurred vision. At presentation, the physical exam, including neurologic exam, is unremarkable. Laboratory evaluation reveals cocaine in the urine and moderate elevation of the liver enzymes. Chest radiograph showed a reticulonodular pattern. Computed tomography of the head demonstrated multiple enhancing lesions in the right parietal lobe. Infectious workup, including lumbar puncture, were negative. The patient did undergo bronchoscopy with biopsy revealing non-caseating granulomatous disease. An ACE level was at the top level of normal at 52.

Discussion: Sarcoidosis is a multisystem granulomatous disease of unknown pathogenesis. Involvement of the CNS is uncommon and seen in only five percent of patients. About half of these have subclinical disease diagnosed postmortem. CNS lesions can mimic any intracranial mass lesion. The most common manifestation is cranial neuropathy, especially involving cranial nerve seven and leading to facial weakness or hemiparesis. Initial symptoms include headache, impaired vision, vertigo, ataxia, and seizures. Seizures occur in 22% of cases and are a poor prognostic sign. Involvement of the meninges produces an aseptic meningitis. Hydrocephalus is a common and potentially fatal complication of granulomatous disease involving the ventricular system. Serum ACE levels are characteristically elevated. The diagnosis of neurosarcoidosis is simplified if other organ systems are involved, and can be biopsies. Neuroimaging with CT is slightly less sensitive compared to MRI. Lesions appear as slightly hyperdense with a homogenous enhancement. The location of the lesions tend to correlate well with neurologic deficits. As with pulmonary sarcoidosis, treatment includes prednisone. Treatment failures may respond with the addition of immunosuppressive therapy. Most patients will respond to therapy but relapse occurs in 33% of patients, often at the previous site. Intracranial lesions have a worse prognosis and higher relapse rate.

GASTROINTESTINAL MANIFESTATIONS OF HEREDITY HEMORRHAGIC TELANGIECTASIA (HHT): CLINICAL, ENDOSCOPIC AND RADIOLOGICAL FINDINGS

S. C. Loo, MD, (Associate), Medical College of Wisconsin

Case: Mr. C. is a 41-year-old AA who presented with a two-week history of lightheadedness, shortness of breath, dyspnea on exertion, and fatigue. He reported moderate alcohol use and a family history of "bleeding problems." Exam was significant for tachycardia, pale oral mucosa, and a liver span of 10-12 cm with no bruits or thrills. Hb was 2.5 mg/dl. EGD showed multiple telangiectasias (3-4 mm) in the proximal duodenum. Colonoscopy showed 2 cm and 8 cm telangiectasia in the cecum and mid-transverse colon respectively. He refused further diagnostic workup prior to discharge.

Discussion: HHT is an autosomal disorder which leads to telangiectasias on the skin and mucosal surfaces. The two most common causes of blood loss are epistaxis and GI bleeding. Epistaxis typically occurs as round, red lesions; sometimes surrounded by an anemic halo. Three different combinations of A-V malformations have been described; 1.) AVM between the hepatic artery and vein causing high output failure, 2.) AVM between the portal vein leading to portal hypertension with esophageal varices. Characteristic hepatic angiographic features in HHT include dilation of the hepatic artery and its branches, numerous small telangiectatic lesions scattered throughout the liver and early visualization of the hepatic veins. Dynamic CT scan has the same diagnostic yield as celia angiography. MRI was not found to be superior to CT scan.

A CASE REPORT OF CONGESTIVE HEART FAILURE FROM AMYLOIDOSIS

Harish Ponnuru, MD, (Associate), Sinai Samaritan Medical Center

Case: A 76-year-old female presents with dyspnea on exertion, shortness of breath, and a two-week history of lower extremity edema. She underwent cardiac catheterization, which revealed normal coronary arteries. A biopsy of the right ventricle was obtained at that time. Congo Red staining revealed apple-green birefringence when examined under polarized light microscopy, diagnostic for amyloidosis.

Discussion: Amyloid is a fibrillar protein, arranged in a betapleated sheet conformation. This structure confers resistance to phagocytosis and proteolysis and makes it relatively insoluble in vivo. The pathophysiology of the various forms of this disease relate directly to the particular tissue that accrues deposits of this protein. In primary amyloidosis, the AL (amyloid light chain) protein deposits systemically. A secondary form exists as well and is termed reactive systemic amyloid. This is due to the underlying presence of chronic disease or chronic hemodialysis. In this condition, AA (amyloid A) protein is deposited mostly in the liver, spleen, adrenals, kidney and intestinal tract.

Cardiac amyloidosis is associated with diffuse deposition in myocardial tissue, although it can be seen in pericardial tissue as well. As deposition increases throughout the ventricle, it become stiff and noncompliant. This leads to a picture of restrictive cardiomyopathy and symptoms of congestive heart failure. This is the most common clinical presentation of amyloidosis. If the coronary arteries themselves become involved, angina pectoris may develop. The ECG shows low voltage in half of patients. Deposition in conduction pathways leads to arrhythmias with atrial fibrillation being most common. The echocardiogram demonstrates a sparkling granular texture. Biopsy of involved tissue is diagnostic. Treatment utilizing melphalan and prednisone does prolong survival, however, median survival with cardiac disease is only five months.

HOMOCYSTEINE INCREASES MONOCYTE ADHESION TO HUMAN ENDOTHELIAL CELLS VIA A CYCLOOXYGENASE-DEPENDENT MECHANISM

R.J. Tumuluri, MD (Associate), M. D. Silverman, MSci, and P.I. Lelkes, PhD, Sinai Samaritan Medical Center, Departments of Medicine and Cell Biology

Elevated plasma homocysteine (HC) has been recently recognized as an independent risk factor for the development of atherosclerosis. Monocyte adhesion to, and subsequent migration through, the endothelial cell lining of the vascular lumen is a pivotal early event in the generation of atherosclerotic plaques. We hypothesized that HC can modulate monocyte/endothelial cell interactions by altering endothelial cell surface expression of cell adhesion molecules. We incubated confluent monolayers of human aortic endothelial cells (AEC) with various concentrations of HC (0-1000

M) for up to 24-hours, and measured adhesion of subsequently seeded human monocytic U-937 cells. After culturing AEC in the presence of physiological levels of HC (i.e. 10 M), monocyte adhesion was not significantly different from that in untreated controls (p>0.114, n=5). At higher HC concentrations that are representative of *in vivo* pathological plasma levels, however, we observed a marked increase in monocyte adhesion to AEC. With 30 M HC, monocyte adhesion to AEC was elevated to levels 248 35% of that seen with untreated controls (p=0.014, n=3). This effect was maximal at 100 M HC (302 43% of control values, p=0.002, n=5), maintained through 300 M HC, and began to decrease at 1 mM HC, a concentration at which AEC cytotoxicity became evident. Concomitant incubation of AEC with 100 M HC and either 10 M indomethacin or 10 M aspirin decreased monocyte adhesion to a level not significantly different from that in untreated controls (p>0.8, n=3). In conclusion, HC increases monocyte adhesion to cultured AEC in a dose-dependent fashion, which is ameliorated by clinically relevant concentrations of cyclooxygenase pathway inhibitors. These data suggest a casual link between elevated plasma HC levels and the subendothelial accumulation of monocytes which is a hallmark of atherogenesis. We are currently investigating potential involvement of endothelial ICAM-1 and VCAM-1 expression in mediating these effects. Further work is warranted to determine whether these mechanisms operate in the *in vivo* scenario.

EOSINOPHILIC PNEUMONIA: IDIOPATHIC VS. DRUG INDUCED

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An increase in circulating or tissue eosinophils in the common finding in a diverse group of pulmonary disorders known as eosinophilic lung diseases. The eosinophilic cell can release a large number of cytokines, oxygen radicals, arachidonic acid metabolites, lipid mediators in addition to the cell's own distinctive granules. All of these mediators combined can lead to substantial lung tissue injury. Presently eosinophilic lung diseases can be identified and categorized by one of these means. First, through peripheral blood eosinophilia and chest x-ray infiltrates. Second, via a more direct means with a lung biopsy. Finally, by way of the minimally invasive bronchoalveolar lavage procedure, which can be performed at multiple time points in the course of the disease. Reported is an unusual case of eosinophilic pneumonia in the setting of potential alternative/homeopathic medicine contribution.

A 57-year-old Caucasian woman with nonproductive dry cough, shaking chills and fever x 1 week. At presentation the patient had bilateral apical infiltrates on X-ray, WBC 17.7, 50% (relative) eosinophils, 8,800 (absolute) eosinophils, GGT 50 AST 29, ALT 86, LDH 245, ESR 61. PPD-neg., ANA-neg., Complement Levels C_3, C_4 and CH all wnl., Blasto & Coccida CF AB <1:8, Histo serology <1:8, Fungal serology-neg. High-resolution chest CT revealed bilateral apical and left superior lobe infiltrates. Bronchoscopy with no gross abnormalities. BAL with biopsy demonstrated eosinophilic infiltration throughout lung fields with negative results for legionella and AFB. Patient was discharged with an oral prednisone taper regiment and was instructed to discontinue all homeopathic medications, most notably dried liver fluke and dog heartworm pills. Patient returned to clinic after one month, symptom free, with laboratory and chest X-ray results within normal limits.

Discussion: With the heightened interest in homeopathic medicine, the potential for drug reactions/interactions increases dramatically. As new agents are brought to market and exposure to toxic agents occurs, the list of eosinophilic lung diseases will continue to grow. Corticosteroids remain the mainstay of treatment for many of the eosinophilic lung diseases. Corticosteroids work by blocking production of eosinophils by bone marrow, inhibiting adherence of eosinophils and by overcoming the effect of the cytokines responsible for prolonging eosinophilic survival.

LYMPHOCYTE-CONDITIONED MEDIUM ENHANCES CA^2 + CURRENT IN THE POSTERIOR PITUITARY: IMPLICATIONS FOR SIADH

R.A. Wilke, MD/PhD (Associate); D. Hildeman, PhD; K. Pederson; D. Muller, MD/PhD; M.B. Jackson, PhD, University of Wisconsin, Madison

States of profound inflammation are known to influence fluid and electrolyte homeostasis through an increase in the release of neurohypophysial peptides. Recent data suggest that inflammatory cytokines can increase serum levels of antidiuretic hormone (ADH). In an effort to define this immune-neuroendocrine interaction mechanistically, we designed several experiments to monitor the excitability of neurohypophysial axon terminals while perfusing them with lymphocyte-conditioned

medium. In the past, the small size and inaccessibility of these peptidergic nerve terminals has impeded progress in understanding their secretory function. However, with the recent application of patch clamp technology to the rat neurohypophysis, we have gained considerable insight into the membrane events governing the release of ADH under a variety of physiologic and pathologic conditions.

Supernatant harvested from mouse T-Cell culture medium causes a reversible increase in neurohypophysial calcium current. Control medium has no such effect. Interestingly, the potentiating effect of the lymphocyte-conditioned medium can be inactivated by heat (100C for 30 minutes prior to superfusion). Taken collectively, these data suggest that some soluble factor released by the T-Cell line is capable of enhancing neurohypophysial ADH release through a selective increase in calcium influx. Such an interaction could very well be responsible for the clinical "syndrome of inappropriate ADH secretion (SIADH)" which accompanies many severe inflammatory processes. Further electrophysiologic studies designed to characterize this phenomenon might eventually lead to the development of novel therapeutic strategies for controlling it.

CASE REPORT OF A DAIRY FARMER WITH OVERDOSE OF THE VETERINARY TRANQUILIZER, ZYLAZINE

Michelle Bensen, MD, (Associate), Marshfield Clinic/St. Joseph's Hospital, Marshfield, WI

Xylazine is a veterinary immobilizing agent that has been identified as a drug of abuse and misuse in humans. Unfortunately, medical doctors have had little if any experience with this drug, as it has been tested in a limited fashion in humans. There have been eleven case reports of human use of this drug either with suicidal, accidental or abuse intent. Over a one-year time, the authors have become aware of two additional cases which are reviewed in this article. This drug is controlled under schedule 1, part 1, of the Federal Food & Drug Act and as such may be used only on animals "under the direct supervision of a licensed veterinarian." This medicine is available in injectable form only but has been shown through several case reports to also be absorbed orally. Since xylazine is not used in human medicine the range of effects reported from bradycardia to apnea have been categorized in this review. Hopefully, this will be helpful for emergency situations when physicians encounter overdose patients with an unknown substance.

ACUTE HEPATITIS SECONDARY TO PROZAC THERAPY

Qiang Cai, MD (Associate), Michelle Bensen, MD, Todd Talbot, DO, Grace Devadas, MD, Howard Swanson, MD, John Olson, MD, John Kirchner, MD, Marshfield Clinic/St. Joseph's Hospital, Marshfield, Wisconsin

Hepatotoxicity is one of the known adverse effects of fluoxetine (Prozac) (Cooper GL, 1988). It usually presents as elevation of liver enzymes without clinical symptoms. Prozac-induced hepatitis is not a well known side effect. To our knowledge, there are only three cases of Prozac related acute hepatitis published to date. Whether it is a truly rare phenomena, or it has not been well recognized is unknown. Since Prozac is a commonly prescribed medicine we report two cases of acute hepatitis secondary to Prozac treatment in order to alert others to this possible relationship.

Our two patients were middle-aged and presented with acute abdominal pain, jaundice, elevation of liver transaminases, total bilirubin and alkaline phosphatase. Both had taken Prozac for several months before the above presentation. Extensive laboratory testing to include viral hepatitis serologies, iron and autoimmune assays were normal or negative. Abdominal ultrasound and ERCP failed to find gallstones in either patient. With discontinuation of Prozac, symptoms improved slowly. One patient's liver function tests became normal about six months after discontinuation of Prozac. The other one still has abnormal liver function tests, since Prozac was discontinued only one month ago. Liver biopsy and Prozac-rechallenge were not performed in these two cases.

Of the five known cases four presented with painful jaundice. Each had taken Prozac for several months (1.5-6 months) prior to presentation. Improvement of liver function tests occurred at least one month after discontinuation of Prozac (4 out of 5 patients). Suspicion and early discontinuation of Prozac is recommended, as long-term effects on the liver are unknown.

PRIMARY SEROSAL LYMPHOMA

Leah L. Dietrich, MD (Associate), Jordan Berlin, MD, University of Wisconsin Hospital and Clinics, Madison, WI

A 68-year-old female with chronic coccidiomycoses suppressed with fluconazole presented with symptoms of chest pain and dyspnea. Examination revealed increased jugular venous pressure and no pulsus paradoxus or lymphadenopathy. Lungs were clear with decreased breath sounds and

dullness to percussion at bilateral bases. A pericardial friction rub was present. Laboratory studies were normal except: protein 2.6, alkaline phosphatase 120, GGT 103, and LDH 544. Her HIV status was negative. Echocardiogram revealed a large pericardial effusion. Chest X-ray showed bilateral pleural effusions, an enlarged cardiac silhouette, and no infiltrates or pulmonary vascular congestion. Thoracentesis yielded clear yellow fluid with LDH 3144, and 52,250 white cells with 34% neutrophils and 64% lymphocytes. Pleural fluid Grams stain, bacterial cultures, and tests for AFB, coccidiomycosis and other fungi were negative. Large cells with an increased N:C ratio and prominent nucleoli were present on cytology. Immunohistochemistry classified these cells as monoclonal B-cells indicating large B-cell lymphoma. CT scans of the chest and abdomen revealed pleural effusions, a large pericardial effusion, enhancement of the pericardium, and no significant adenopathy or additional sites of lymphoma. A diagnosis of primary serosal lymphoma (PSL) was made and chemotherapy was initiated.

Discussion: We report a case of primary serosal lymphoma in a patient with chronic coccidiomycoses. Lymphoma involving the heart, pericardium, or pleural spaces is not a rare finding, however, primary serosal lymphoma is quite rare. PSL is defined as pericardial, peritoneal or pleural lymphomatous effusions without an identifiable mass. It has been reported in several patients with AIDS and in two immunocompetent patients. An association with human herpes virus-8 (HHV-8), Kaposi's sarcoma and EBV has been noted. An etiologic association with HHV-8 has been suggested. The most common presenting symptoms are chest pain, dyspnea and fever. Histology is most often large cell lymphomas of B-cell lineage. All PSLs tested for cell surface markers express CD 45. Cytology and flow cytometry may be the only diagnostic tools as nodal and organ involvement is absent. CHOP is the treatment of choice but prognosis is poor. Our patient fits the above definition, description of symptoms and histologic features but has no known immunodeficiency. Interestingly, it has recently been proposed that disseminated or chronic coccidiodomycosis may indicate an as yet undiscovered underlying immunodefienciency.

LEAD TOXICITY: A PROBLEM FOR ALL PHYSICIANS

Dena A. Green, MD, (Associate), Department of Internal Medicine, Medical College of Wisconsin

Lead is one of the most ubiquitous environmental poisons encountered in everyday life yet is rarely thought to be a problem for physicians outside pediatric settings. Sources of lead in the environment include air, soil, and water, as well as paints. It is found commonly in the home and workplace, and especially in work settings, adults often have more opportunities for exposure than children. We report a case of an 18-year-old man who was exposed to significant lead levels while cleaning a gun shop. He presented with altered mental status, abdominal pain, and possible seizure activity. His serum lead level on admission was 104 mg/dL. He was treated successfully with chelation therapy, and recovered without complications or residual effects of the toxicity.

Discussion: This patient presented with classic signs and symptoms of acute lead toxicity, was transferred to a children's hospital for treatment, then presented to an Internal Medicine clinic for follow-up. This vignette discusses the common sources, modes of absorption, systemic signs and symptoms, diagnostic testing, and treatment of lead toxicity in the adult population.

WAIT! IS THAT BLOOD IRRADIATED? A MAN, A TRANSFUSION, A RASH

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This is a case study of a 48-year-old man who was in good health until December, 1996, when he developed a flu-like illness. By the end of January, 1997, the patient had developed protracted nausea and vomiting; a creatinine was 15 and a chest x-ray showed pulmonary infiltrates. He received two units of PRBCs due to pancytopenia. Renal biopsy showed interstitial nephritis. The patient subsequently developed a fever, a rash, GI bleeding, lever failure, and seizures. Serial bone marrow biopsies progressed from a 2% population of odd-appearing polyclonal T cells to complete marrow fibrosis. CSF also showed a 2% population of odd looking lymphocytes. Skin biopsy showed dermoepidermal apoptosis and perivascular infiltrates. The patient developed sepsis and died in 4/97. HLA typing of his blood showed DR 11, - ; whereas HLA typing of his buccal mucosa showed DR 11, 14. His mother's HLA type at DR was 13, 14 (no other living relatives). We concluded that the patient's circulating lymphocytes were not his own—he contracted graft-vs-host disease from a blood transfusion.

Discussion: Transfusion-associated graft-versus-host disease (TAGVHD) is a rare complication of

transfusion of nonirradiated blood, occurring when lymphocyte-contaminated PRBCs from a donor homozygous for an HLA haplotype is transfused into a heterozygous recipient, traditionally thought only to occur in immunocompromised (e.g., leukemia) patients. Since the 1980s, TAGVHD in presumed immunocompetent patients has been recognized, but reports remain extremely rare. This is the first reported case of TAGVHD in a patient with renal failure and pancytopenia. It is also the first case report to document involvement of the CSF in TAGVHD. It may be time to expand the indications for irradiation of blood prior to transfusion.

FULMINANT HEPATIC FAILURE IN AN IMMUNOCOMPROMISED PATIENT

Jeffrey J. Jones, MD, (Associate), Gundersen Lutheran, La Crosse, Wisconsin

A 36-year-old woman with a history of idiopathic pulmonary fibrosis on immunosuppressive therapy was referred for fever, abdominal discomfort, and nausea. Liver tests were obtained at the referring hospital and acute cholecystitis was diagnosed.

A right upper quadrant ultrasound was normal and the patient was continued on antibiotics. Diarrhea developed and the patient's liver tests continued to rise. Various cultures were unrevealing. Septic shock developed clinically and despite aggressive support the woman expired. Autopsy revealed submassive necrosis of the liver due to adenovirus infection.

Adenoviruses have been associated with upper respiratory tract infections in children and adults. Adenoviruses have been identified as pathogens in immunocompromised patients and should be considered in severe illness in those individuals. The clinical syndrome and differential diagnosis will be discussed.

CONFLICTING OXYGENATION VALUES IN A CYANOTIC MAN WITH HIV

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Presentation: A 32-year-old HIV+ patient with a CD4 of 10 presented with shortness of breath, chest pain, lightheadedness, and cough. He was alert and oriented, and not in respiratory distress. His lips and finger tips were cyanotic. A pulse oximetry showed an oxygen saturation (SaO_2) of 83%. An arterial blood gas (ABG) was drawn which showed: pH 7.42, $PaCO_2$ 39 mmHg, PaO_2 103 mmHg, HCO_3^- 25 mmol/L, SaO_2 84% on 6 L O_2 A methemoglobin (MetHb) level was added to the ABG and found to be 12.2% (normal <1.2%). Diagnosis of Methemoglobinemia was supported by the presence of Heinz Bodies 56% (normal 0-28%) on blood smear.

Etiology: Methemoglobinemia can be 1.) Hereditary, 2.) Acquired 3.) Infants <4 months. In this man there was no family history of cyanosis, and Hemoglobin electrophoresis was normal (A1 97.3%, A2 2.7%) with no evidence of hemoglobin M. Hereditary G6PD deficiency and MetHb reductase deficiency were considered. Review of patient's medications revealed dapsone as the probable etiology. This drug was added one week prior to admission and is a known cause. The patient improved after withdrawal of dapsone and treatment with IV pentamidine. MetHb returned to normal over four days.

Discussion: Symptoms in Methemoglobinemia correlate with % of MetHb [10-15% cyanosis], [20-40% headache, fatigue, weakness, dizziness], [40-60% lethargy, dyspnea, bradycardia, stupor, respiratory depression] [60-80% seizures, coma, death]. Treatment is supportive in concentrations <45%, but if stupor or coma then methyline blue iv is indicated. In general patients tolerate metHb to 20% with only cosmetic changes, but a population where pneumocystis carinii pneumonia (PCP) prophylaxis is used a normally mild insult in methemoglobin may result in compromised presentation. The addition of dapsone to this patient rather than improving pulmonary status caused the oxygen dissociation curve to adjust enough to cause hypoxia. It is important to consider other etiologies for hypoxia in the HIV population and to not attribute all hypoxia to opportunistic infections. The key to recognizing a methemoglobinemia is recognition of signs, symptoms and the disagreement between ABG (PaO_2) and pulse oximetry (SaO_2). (references 6)

KLIPPEL-TRENAUNAY (KT) SYNDROME WITH MULTIPLE PULMONARY EMBOLI: A CHALLENGING PRESENTATION

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KT syndrome is a rare congenital angiodysplastic syndrome classically consisting of the triad of vascular nevus, varicose veins and bony and soft tissue hypertrophy. Other associated manifestations may include lymphangiomatous and deep vein anomalies, visceral and facial hemangiomas.

A 24-year-old gentleman with KT syndrome presented with the acute onset of dyspnea,

hypoxemia and hypotension. Initial resuscitation was started with oxygen and boluses of IV fluids in the ER. He remained symptomatic while being evaluated in the intensive care unit and a VQ scan revealed multiple large pulmonary emboli bilaterally. IV heparin, which had been started empirically earlier due to the high index of suspicion for PE, along with IV fluids and oxygen supplementation, stabilized the patient.

The patient had previous history of recurrent GI bleeding secondary to multiple visceral hemangiomas. Primary caval filter placement was contemplated to avoid long term oral anticoagulation. Radionuclide angiography and a magnetic resonance angiogram of the abdomen revealed the infrarenal IVC to be very large measuring 40-45 mm. Currently available IVC filters do not fit this "megacava." In addition large collaterals from the common femoral veins were found to be tracking cephalad along the abdominal wall that would allow lower extremity thrombi to reach the lungs. These collaterals would make both surgical ligation and filter placement futile. Hence, long-term management options were limited to compression stockings and oral anticoagulation.

In conclusion, this was a very unusual and therapeutically challenging presentation of KT syndrome. There have been only 5 prior English language case reports of pulmonary emboli in patients with this rare syndrome. Lack of any large experience with thromboembolic phenomena in these patients makes any firm treatment recommendations impossible. However, warfarin anticoagulation with compression stocking therapy seems to be a logical approach. Caval filters should be considered if indicated and anatomically feasible.

HYPERRENINEMIC HYPERTENSION SECONDARY TO A SPONTANEOUS PERINEPHRIC SUBCAPSULAR HEMATOMA. AN ASSOCIATION WITH POLYARTERITIS NODOSA AND THE SYNDROME OF A PAGE KIDNEY

T. J. Pintar, MD, (Associate), Chief Medical Resident, University of Wisconsin Medical School

Polyarteritis nodosa (PAN) is a systemic illness of unknown etiology. Manifestations are secondary to inflammation and necrotizing vasculitis of small-medium sized vessels in multiple organ systems.

Hyperreninemic hypertension has been described in the setting of PAN, though not in the setting of spontaneous renal aneurysm rupture with formation of a subcapsular perinephric hematoma. A syndrome analogous to the original description of cellophane perinephritis by Page in 1939. Page kidney is a rare cause of hyperreninemic hypertension. It most commonly presents in young, healthy individuals as a sequelae of blunt trauma to the kidney. A resulting unilateral subcapsular hematoma or encasing fibrous capsule causes extrinsic parenchymal compression. Renal cortical ischemia, increased renin release, and decline in GER by the affected kidney present as new onset severe hypertension, pain, and infrequently declining renal function.

Case: A 25-year-old man presented to an outside hospital with an acute onset severe right-sided flank and abdominal pain, fever, hypertension, hematuria, leukocytosis and hypokalemia. The patient had been well until seven months prior to presentation when he noted gradual onset of 25-lb. weight loss, fatigue, migratory arthralgia and low back pain, headache and testicular pain. He denied cough, nausea, vomiting, diarrhea or dysuria. There was no history of recent pharyngitis or cellulitis. He denied other neurologic complaints or prior history of nephrolithiasis. He admitted to intravenous drug use in the preceding year, and had been involved in a motor vehicle accident seven months earlier.

Initial work-up was significant for hypokalemia (K+ 2.7), leukocytosis (WBC 21,000) and urinalysis with an active sediment, sterile pyuria and no casts. Serum creatinine, BUN, and liver function tests were normal. Blood and urine cultures showed no growth. Tests for ANA, HIV, complement, ANCA, and ASO titer were normal. A PPD was negative with appropriate response to control antigens. Right upper quadrant ultrasound showed a fluid collection in the superior pole of the right kidney with no obstruction. CT scan of the abdomen revealed a right subcapsular perinephric hematoma with evidence of bilateral striated cortical attenuation. Selective renal-celiac angiogram showed multiple microaneurysms in the left and right renal and hepatic arteries consistent with a systemic vasculitis. Testing for hepatitis was consistent with an acute hepatitis B infection. Supine aldosterone and plasma renin activity were elevated and selective renal vein renin ratio was 3:2 localizing to the right kidney.

The patient received treatment with ACE inhibitors, corticosteroids and antivirals. Gradual resolution of the right subcapsular hematoma and therapy for systemic vasculitis correlated with improved blood pressure control and resolution of electrolyte abnormalities.

Discussion: Polyarteritis nodosa is a systemic necrotizing vasculitis of unknown etiology. Association with hepatitis B antigenemia and immune complex induced inflammation has been described. Aneurysmal dilation of small and medium sized vessels along with renal, gastrointestinal and a host of constitutional symptoms is common. Hyperreninemic hypertension in association with renal parenchymal ischemia has been described in PAN. We report a case of compressive perinephritis caused by rupture of a subcapsular renal artery in a patient with PAN; the syndrome of a Page kidney.

AN UNUSUAL ORGANISM CAUSING SPONTANEOUS BACTERIAL PERITONITONITIS IN A 69-YEAR-OLD MAN WITH LIVER CIRRHOSIS

Monika Rolek, MD (Associate), Marshfield Clinic/St. Joseph's Hospital, Marshfield, WI

Salmonella species are infrequently implicated pathogens in spontaneous bacterial peritonitis (SBP). Medline search from 1982 to present reveals less than 10 such cases in the English language literature.

Case: A 69-year-old man with cryptogenic liver cirrhosis, secondary ascites and hepatic encephalopathy, presented with a two day history of lower abdominal pain, anorexia and diarrhea. The patient's past medical history was remarkable for documented Salmonella (group B) gastroenteritis 10 years earlier. On physical exam he appeared jaundiced, lethargic and chronically ill. Lung auscultation revealed bibasilar rales, heart-tachycardia, and abdomen was distended and diffusely tender with positive shifting dullness. Laboratory findings included: WBC 5,000/mm^3 with 20% band forms; albumin 2.2 g/dl; total bilirubin 3.8 mg/dl; AST 71 U/L; and Na 128 mmol/L. On day 1 he underwent a diagnostic paracentesis, which showed cloudy yellow fluid containing over 31,000 WBC/mm^3 with 88% polymorphonuclear leukocytes and Gram negative bacilli identified as Salmonella typhimurium. Blood, urine and stool cultures were negative. Repeated CT scan of the abdomen failed to show any new intraabdominal pathology. Cefriaxone with metronidazole, and subsequently ciprofloxacin alone, was used. Despite the achievement of ascitic fluid sterilization on day 4, the patient developed intractable hyponatremia and died from cardiorespiratory failure on day 13.

Discussion: SBP is a life threatening complication occurring in up to 30% of cirrhotic patients. The mechanism involves the bacterial seeding of ascitic fluid during transient bacteremia. Cirrhotic patients are found to have longer and more frequent episodes of bacteria. E coli, Klebsiella pneumonia and Streptococcus sp. are the most commonly responsible organisms for SBP. Salmonella has rarely been implicated. The number of patients reported is too small to recommend any specific antimicrobial treatment. Cefotaxime, routinely effective in SBP, has good in vitro activity against Salmonella. More experience with quinolone therapy is needed before it can be universally used in this setting.

A CASE PRESENTATION OF HENOCH-SCHONLEIN PURPURA AND PANCREATITIS

Bryan P. Rolph, MD, (Associate), Gundersen Medical Foundation/Lutheran Hospital, La Crosse, Wisconsin

A 25-year-old male from a small Wisconsin town began having knee stiffness after being treated with amoxicillin for pharyngitis. He then noted a petichial rash on his legs, which soon spread to many parts of his body. Next, his elbows and wrists began to swell and he was subsequently admitted for further evaluation.

Soon after admission he began having abdominal pain and melena. Laboratory investigation showed that the patient's amylase and lipase were elevated, suggesting pancreatitis. Further testing narrowed the differential diagnosis and a skin biopsy was performed which showed IgA deposition around the arterioles in the dermis. This confirmed the suspected diagnosis of Henoch-Schonlein Purpura (HSP).

HSP is a vasculitic disease of unknown cause, which most commonly afflicts children. It can affect many organs, but involvement of the pancreas is quite rare, and this is only the sixth reported case.

Treatment generally involves supportive care. However, with cases involving the abdominal viscera, steroids have been shown to be beneficial in the prevention of complications.

HUMAN GRANULOCYTIC EHRLICHIOSIS - UNSUSPECTED CAUSE OF SEPSIS

Hariot Sidhu, MD (Associate), Marshfield Clinic/St. Josephs Hospital, Marshfield, WI

Case: A 79-year-old man with a history of coronary artery disease, status post coronary artery

bypass grafting and mitral valve replacement, who presented with a 1-2 week history of generalized weakness and fatigue, so much so that the patient was unable to get out of bed. It was associated with profound anorexia and low-grade fevers. The patient was recently treated with a course of amoxicillin/clavulanic acid for upper respiratory tract infection. The patient gave no history of tick bite, though the patient lived in rural Wisconsin. Exam revealed an ill appearing patient with blood pressure - 74/40 mmHg, temperature - 97.7, heart rate - 74. Lungs - bilateral basilar rales, Heart - irregularly irregular, prosthetic valve click auscultated. Extremities - no edema, cool and clammy to touch. Labs: WBC - 11,000, Hb 10.6 grams, Platelets 210,000, B-18, N74, L-5, M-1, E-1. LFT's - Low albumin otherwise normal. Babeosis Ab<I:6, Babeosis smear negative, Lyme titre 1:32, ESR-80. CXR - Changes consistent with mild CHF. 2-D echocardiogram showed no evidence of endocarditis. CT scan of the abdomen/pelvis did not reveal any focus of infection. Serial blood cultures - negative. Patient was admitted with provisional diagnosis of sepsis of unknown etiology and was treated empirically with IV ceftriaxone. Patient required dopamine for blood pressure support. In spite of several days of IV antibiotics the patient continued to be febrile and hypotensive, and was unable to be weaned from the dopamine. On day 4 of hospitalization peripheral smears revealed inclusion bodies consistent with human granulocytic ehrlichiosis. The diagnosis was subsequently confirmed by serology and by polymerase chain reaction (PCR) technology. Patient was treated with IV doxycycline and became afebrile within 24 hours and had an immediate response in his blood pressure.

This case demonstrates HGE as a cause of sepsis in a clinical setting where a tick-borne illness seemed unlikely. HGE can cause symptoms ranging from non-specific illness to potentially fatal condition if undiagnosed and untreated.

GRANULOCYTIC SARCOMA: LOCAL PRESENTATION OF A SYSTEMIC DISEASE

Rupika Uberoi, MD (Associate), Vikram Nangia, MD (Associate), Sinai Samaritan Medical Center, University of Wisconsin Medical School, Milwaukee Clinical Campus, Milwaukee, Wisconsin

Granulocytic sarcoma or chloroma is a localized tumor mass composed of immature cells of the granulocytic series. They are a rare, but well documented, manifestation of myelogenous leukemia. The reported incidence of chloroma in acute myeloid leukemia is 3.1-9.1%. Less commonly, it has been reported in chronic myeloid leukemia (CML) and very rarely in other myeloproliferative disorders. We report an unusual case of CML in which the initial presentation of the disease was spinal cord compression secondary to granulocytic sarcoma.

A 36-year-old woman presented with complaints of backache for three weeks and a three-day history of progressive weakness, numbness and tingling in her lower extremities. Her past medical history was unremarkable. Physical examination was significant for findings suggestive of spastic paraplegia and numbness extending to the level of the tenth dorsal segment, and the absence of splenomegaly. Initial laboratory data revealed a total white blood cell count of 193,000/mm^3. Peripheral smear was typical of CML. Magnetic resonance imaging of the thoracic spine showed extensive infiltration of the spinal canal by a tumorous growth from the level of the fourth to the eleventh thoracic vertebra. An emergent decompressive laminectomy was performed and tissue samples were obtained which confirmed this tumor to be granulocytic sarcoma. The patient received post-operative radiotherapy with no improvement in symptoms.

Granulocytic sarcoma usually occurs concurrently with clinical evidence of leukemia, although it may rarely arise while the patient is in clinical remission and may antedate the diagnosis of leukemia by as many as two years. Bone is the most common site of involvement and kidney the most commonly involved organ. Presentations include local pain (78%), tumor nodules (65%), and motor or sensory disturbances (52%). Treatment involves initiation of chemotherapy at the earliest. Evidence of cord compression warrants emergent laminectomy while stable neurological signs are treated with radiotherapy. The mean survival in CML after diagnosis of chloroma has been reported to be 3.8 months.

Adult Immunization Deserves Physician Involvement

Jay A. Gold, MD, JD, MPH

At its most recent House of Delegates session last April, the State Medical Society endorsed a resolution that encourages physicians to recommend and administer influenza and pneumococcal immunizations for their adult patients at the time patients receive care in the hospital and in ambulatory care settings.

If Wisconsin physicians take this resolution to heart, it will benefit their older patients greatly. There are persuasive data showing that the most effective interventions to increase adult immunization rates are those interventions aimed at hospital inpatients, and at physician recommendations and actual immunizations at the time physicians see their patients for medical care.

Doctor Gold is MetaStar's Senior Vice President and Principal Clinical Coordinator.

Preventable Deaths

The importance of obtaining both of these vaccinations cannot be overestimated. Influenza and pneumococcal disease kill approximately 60,000 Americans each year, or about as many as AIDS and breast cancer combined. Influenza and pneumococcal vaccinations have been shown effective in preventing illness, hospitalization, and death among those at risk. But the number of Medicare beneficiaries in Wisconsin for whom Medicare was billed for flu vaccination in 1997 amounted to 53.2% of all Wisconsin Medicare beneficiaries, and the number of beneficiaries in the state for whom Medicare had been billed for pneumococcal vaccination by 1995 (the last year for which data are available) was 35%.

The Wisconsin Adult Immunization Coalition, which MetaStar convened and on which the SMS is represented, is committed to achieving an 85% rate of flu immunization and a 60% rate of pneumococcal immunization in our Medicare population. In order for this to happen, physicians throughout the state must make the vaccination of their patients a high priority.

In addition to vaccinating their patients, physicians and other health care workers should receive the flu vaccine themselves during the fall immunization season. Health care workers can be a significant source of the virus for patients at risk. Obtaining a shot yourself is one important way to keep your patients healthy.

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From the Office of General Counsel

Health Care Employee Criminal Background Checks

by Kalisa Barratt, JD, SMS Associate General Counsel

Effective October 1, certain health care employers (and others) are required to conduct criminal background checks on all new hires. Persons convicted of, or who have pending charges for, certain serious crimes may not be employed in positions with access to patients. Present employees will also have background checks performed starting October of next year. Checks must be conducted every four years thereafter.

The law also expands the kind of individuals who will be included in the careworker registry. Following is information about the law based upon proposed rules. Changes in these rules are expected before they become final.

What Entities Must Conduct Background Checks?

The law applies to programs regulated under chapters 48 and 50 of the Wisconsin Statutes. Over 10,000 entities in the state are covered. The Department of Health and Family Services (DHFS) will conduct checks on those entities and individuals with which it has a regulatory relationship. The entities must then conduct background checks on employees and contracted individuals. Chapter 48 regulates children's programs. A partial list of potential employers includes family day care centers, day camps for children, family foster homes for children and child-placing agencies.

Chapter 50 employers include mental health emergency, day treatment, community mental disabilities/AODA, community support programs, community-based residential facilities, ambulance services, EMS first responders – defibrillators, hospitals, rural medical centers, nursing homes, hospices and home health agencies, personal care services and facilities for the developmentally disabled.

This law applies to physicians who are employees or independent contractors. Examples of positions affected include medical directors and contracted emergency room physicians. The law does not apply to physicians who are employers in the clinic setting and who are not regulated by Chapter 50. Thus, if a medical clinic employs a nurse or other health care provider, background checks of the employees are not mandated.

Who Will Be Affected?

Prior to hiring, background checks must be done on anyone who will be under the entity's control and who has access to clients. "Under the entity's control" is defined to mean that an entity may choose and affect whether a person who is employed or contracted with the entity may have contact with clients the entity serves. Also, checks must be performed on anyone who lives on the premises, but is not a client or anyone who holds a license issued by DHFS. Board members or corporate officers who have access to clients must also undergo a background check. This access might include time spent at the facility during a board meeting, for example. The only exception is if the employee's or other's access is infrequent or sporadic and service is not directly related to the care of the patient.

Clearly, hospital employed or contracted physicians and some medical directors will be subject to background checks because they fit into the definition of "under the entity's control." However, it is unclear whether every physician on the medical staff would be subjected to a background check. Courts have held that medical staff bylaws may, but will not always be considered a contract. As such, medical staffs could be considered contracted individuals under the entity's control. At this writing, DHFS' position is that physicians with medical staff privileges are included as individuals for whom hospitals must conduct background checks. The two year credentialing process currently in use at most hospitals will not satisfy this requirement and will need to be modified. SMS is currently reviewing options in this arena.

Note that the law merely provides minimum requirements. This does not mean that facilities can't conduct background checks beyond those required by this law.

What Crimes Bar Someone from Being a Health Care Worker

An employer covered under this law may not hire or contract with a person who it knows or should have known was convicted of or who has pending charges for certain specified serious crimes. Also, persons may not be employed or contracted with if there has been a finding of a governmental unit or state agency of abuse or neglect of a client or misappropriation of the property of any client; of child abuse and neglect; or if the person is credentialed by the department of regulation and licensing and the credentials are no longer current.

Crimes that permanently bar employment are enunciated in the statute and include but are not limited to: 1st and 2nd degree intentional homicide, sexual exploitation of a therapist, 1st, 2nd and 3rd degree sexual assault, treason, robbery with a dangerous weapon, stalking, kidnapping, sexual exploitation of a child, child enticement, and intentional physical abuse of a child.

Other crimes that apply to a permanent bar in the foster care arena include reckless driving, felony murder, 1st and 2nd degree reckless homicide, battery, interference with custody of a parent, hazing, and possession of a dangerous weapon by a person under 18.

Finally, convictions for certain other crimes allow for permissive employment in certain circumstances if the employee can show that he or she has been rehabilitated. These crimes include: operating while intoxicated, battery, felony murder, assisted suicide, partial-birth abortion, lewd and lascivious behavior, and delivery of drug paraphernalia to a minor. There is process in the regulations for requesting a rehabilitation review.

Penalties for Failure to Conduct Checks or False Information or Reports

Any person who knowingly and intentionally provides false information or omits information on the department's background form or who fails to report information about a pending charge or conviction may be required to forfeit $1,000. Additional sanctions may also be levied. Those include denial or revocation of regulatory approval or termination of contract by an agency and termination of employment or contractual relationship by an employer.

What's Included in the Search?

Employers must conduct an extensive background search. The employer must query the Department of Justice, American tribal courts where indicated, DHFS' caseworker registry, and the Department of Regulation and Licensing as applicable. Beyond those specific queries, employers should request criminal histories from other states if the employee has not been a resident of Wisconsin for the past three years. Also, if the employee was in a branch of the U.S. armed services within the last three years, discharge information from the military may be requested. The rules also mandate that employers have personnel policies requiring anyone subject to this law to have an ongoing responsibility to report to the employer if they have been charged with or have committed any offense that could bar employment under this law.

The Caseworker Registry

This law also expands the scope of the caseworker registry. Originally the registry contained information relating to nurse's assistants, home health aides and hospice aids. Now, the registry will include information of all persons whom the Department has found to have abused or neglected a client or misappropriated the property of a client, except persons licensed under specific chapters of the Wisconsin statutes. Those excepted include physicians, physician assistants, physical therapists, optometrists, pharmacists and acupuncturists.

In order to be listed on the registry, a hearing officer must find reasonable cause to believe that the allegations of abuse are true. There is an appeal process if an individual is ultimately found to have abused a client. With the exception of the person's social security number, the information maintained in the registry is public information. However, information may not be released if the investigation of the allegations is pending or if the investigation does not lead to a substantiation of the allegations.

Entities have mandatory a duty to report any allegation of abuse committed by any person employed by or under contract with the entity. Again, this raises the issue of whether anyone on the medical staff would fall under this definition. SMS has submitted comments to the Department asking that this issue be clarified before the rule becomes final. Individuals may also report suspicions of abuse to the Department.

Conclusion

The ultimate goal of the law is to protect vulnerable citizens. In doing so, it will affect a significant number of health care employers and workers, including some physicians. More information about this law may be obtained at the Department's web site: www.dhfs.state.wi.us – click on "News and Initiative."

Your Financial Fitness

Extended Warranties

by Michael J. Dolan, CLU, ChFC,
President, SMS Insurance Services, Inc.

You've just plunked down a considerable amount of money for a new home computer. Now the sales person asks if you want an extended warranty. It sounds like a good idea – an additional one to three years of protection beyond what the manufacturer promises – but is it a good buy?

When it comes to electronics and small appliances, most consumer experts say no. That's because more than 80 percent of warranties on these products go unused; and when things do go wrong, it's generally within the time covered by the manufacturer's warranty. Also, most warranties are limited and only cover manufacturer's defects. Accidents or damage you cause (like spilling coffee on your keyboard or dropping your monitor) aren't covered.

In addition, any upgrades or do-it-yourself servicing may void the warranty. And with rapid technological changes, you may be replacing that new computer sooner than you think. In which case, an extended warranty will be of little value.

Consider these alternatives to buying an extended warranty:

- Some retailers include extended warranty or service agreements in the purchase price when you buy their higher-end products. And specialty stores often include service plans as an inducement to buy with them rather than at a large discount house. Be sure to ask about these packages.
- An easy way to get up to one year of free warranty coverage is to charge your purchase on a credit card that offers this benefit to its cardholders. Check with your credit card company to see if your purchases are eligible.
- Look into purchasing a service contract. Service contracts often have the advantage of including routine maintenance, and the service provider will come to your home or business to repair the product. That's generally not the case with a warranty, which requires you to take your product to the store where you bought it or ship it to an authorized service center for repair.

If you do decide to purchase a warranty or service contract, experts say to find out the answers to these questions:

- What is excluded? Most contracts don't cover normal "wear and tear" or damage caused by misuse or neglect.
- How does the contract's cost compare to those offered by other firms.
- How much do repairs typically cost? How does that compare to the cost of purchasing a contract?
- How often will you use the product? If it's used infrequently, a service contract is probably a bad deal. But if you use the product a lot, a service contract may be a good buy.
- Where will the product be repaired? On your premises? Or do you have to take it back to the store? How long does it take to get something repaired? Is there a toll-free number? 24-hour service?
- If you sell the product, is the contract transferable to the new owner? Who is backing the contract? Is it a reputable company? Will it be in business over the life of the contract?

Michael J. Dolan is president and chief operating officer of SMS Insurance Services and a member of the National Association of Life Underwriters. He can be reached at **ext. 550,** or via e-mail at: **MICHAELD@smswi.org.**

Classified Ads

Family Practice or Internal Medicine. The Minneapolis VA Medical Center is recruiting a Board Certified or Board Eligible (residency completion within the past 6 months with Board testing pending is acceptable) Family Practice or Internal Medicine physician for a part-time position (minimum of 2 days per week) which will be located at the Chippewa Valley Outpatient Clinic. This is a new clinic site with anticipated opening in August 1998. Wisconsin medical license and current DEA registration is required, the physician will be credentialed by the Minneapolis VAMC. The staff position will include federal benefit package, including health and life insurance, retirement, leave and holiday benefits. Please send current CV to: Paul Hammon, MD (00H), VAMC, One Veterans Drive, Minneapolis, MN 55417, or call (612) 725-2103. Human Resource contact: Marion Johnson (05), One Veterans Drive, Minneapolis, MN 55417, or call (612) 725-2060. The Department of Veterans Affairs is an Equal Opportunity Employer. 10/98

Full time primary care position available for a physician at the Twins Ports Outpatient Clinic of the Department of Veterans Affairs. Candidates must be board certified or must have completed the requirements for board certification within 4 years in Internal medicine or Family Practice. The position offers full federal benefits including: Federal Employees Retirement with a 401 type investment plan; Health Insurance Benefits; Life insurance Benefit; Federal Holidays and Leave Benefit. Qualified applicants should send their CV and the names of three references to: Donald Gunderson, MD, Twin Ports VA Outpatient Clinic, 3520 Tower Ave., Superior, WI. Women and Minorities are encouraged to apply. The Department of Veterans Affairs is an Equal Opportunity Employer. 10/98

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Prairie du Chien, WI: Developing new practice and building new clinic facility located on Upper Mississippi River, 60 miles south of La Crosse. Two BC/BE primary care physicians and associate provider needed to staff our newest medical facility in community of 6,000 with service area of 22,000. Community hospital has 49 beds. OB is preferred, not required.

Sparta, WI: BC/BE family physician needed due to upcoming retirement. Full range family medicine practice, includes OB. Clinic has 10 primary care doctors and 7 associate providers, including CNM's. Clinic is attached to the hospital. Sparta, a community of 8,000; has a service area of 25,000 and is located 45 miles from La Crosse.

Tomah, WI: BC/BE family physician to join 7 family physicians, 5 associate providers and 3 other specialists at new clinic facility, located on lake adjacent to recently remodeled 45-bed hospital. Tomah has a population of 8,000 with service area of 25,000 and is 45 miles from La Crosse.

Contact: Tim Skinner at skinner.timothy@mayo.edu or Bonnie Guenther at guenther.bonnie@ mayop.edu Phone: 800-269-1986 or fax CV to 608-791-9898. Franciscan Skemp Healthcare-Mayo Health System, 700 West Avenue South, La Crosse, WI 54601. 10-12/98

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mayo.edu or Bonnie Guenther at guenther.bonnie@mayop.edu Call 800-269-1986 or fax CV to 608-791-9898. Franciscan Skemp Healthcare-Mayo Health System, Physician Services, 700 West Avenue South, La Crosse, WI 54601. 9-10/98

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Fort Atkinson, Wisconsin. Fort Atkinson Medical Center, an affiliated clinic of Dean Medical Center, is actively recruiting for a BE/BC family physician to join their six person practice. The ideal candidate should have an interest in doing full range family practice including obstetrics and intensive care unit work. Call schedule is 1-5 for weekdays and weekends and each full time physician works 4.25 clinic days per week and sees 20-30 patients per day. Contact Scott Lindblom, Dean Medical Center, 1808 West Beltline Highway, Madison, Wisconsin, 53715, (work) 1-800-279-9966, (608) 250-1550, (home) (608) 845-2390, FAX (608) 250-1441. 9-11/98

Lancaster, Wisconsin. Dean Medical Center, a 395 physician multi-specialty group, is actively recruiting for a BE/BC family practice physician for its Grant Community Clinic in Lancaster, Wisconsin (population 4,200). Their current staff consists of two family physicians, one internist and one general surgeon. The group also has one physician assistant and one nurse practitioner on staff. Each physician works four days per week, seeing an average of 25 patients daily. A minimum $120,000.00 guaranteed salary plus incentive is provided. For more information please contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, 1-800-279-9966, (608) 250-1550, FAX (608) 250-1441 or at home (608) 845-2390. 9-11/98

Janesville, Wisconsin. Dean Medical Center, a 380 physician multi-specialty group, is actively recruiting a BE/BC family physician to practice at the Riverview Clinic location in Janesville, Wisconsin. Janesville, population 60,000 is a safe, beautiful, family oriented community with excellent schools and abundant recreational activities. Excellent compensation and benefits are provided with employment leading to shareholder status. For more information please contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, 1-800-279-9966 or (608) 250-1550 or FAX (608) 250-1441. 7-10/98

Southeastern Wisconsin: Fort Atkinson and Watertown Hospitals seek BE/BC pediatricians, family practitioners, internists, OB/GYNs and urologist. Group, partnership, hospital based. Small town charm, easy access to Milwaukee, Madison 40 minutes away, Chicago, two hours. Call Rich at Fort Atkinson Memorial Health Services, 414-568-5413, e-mail at richard.lynch@ famhs.org. 7-10/98

BEAVER DAM, WISCONSIN. Dean Medical Center a 395+ physician private multi-specialty group is actively recruiting a BE/BC internist to join an existing affiliated practice based in Beaver Dam, Wisconsin, which is located approximately 40 miles from Madison. The practice is located in a medical office building which is adjacent to a 125 bed acute care facility. Beaver Dam is a community of over 14,000 people with excellent recreational resources, including Beaver Dam Lake which is over 14 miles long with 149 miles of shoreline. The Community also has more than 270 acres of parks and high quality public and parochial school systems, including a technical college and Wayland Academy, 135 year old co-ed independent college prep school. This is an excellent opportunity for any physician that has additional interests in cardiology or gastroenterology. A two year salary plus incentive and excellent benefits is provided. The call schedule is shared with two other internists in Beaver Dam. For more information contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, Madison, Wisconsin, 53713, work (608) 250-1550, home (608) 845-2390 or fax (608) 250-1441. 7-10/98

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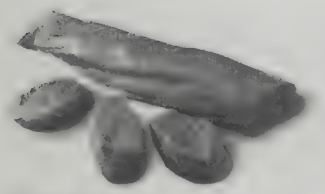
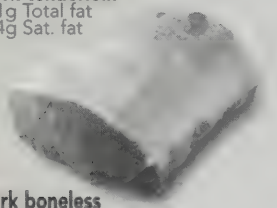
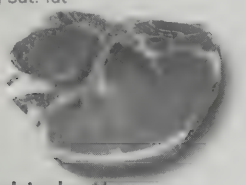


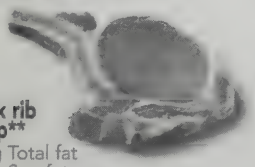
Pork tenderloin*
4.1g Total fat
1.4g Sat. fat



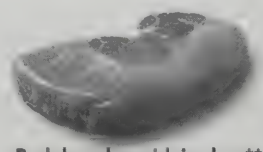
Pork boneless loin roast**
6.1g Total fat
2.2g Sat. fat



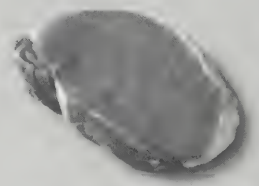
Pork loin chop**
6.9g Total fat
2.5g Sat. fat



Pork rib chop**
8.3g Total fat
2.9g Sat. fat



Pork boneless sirloin chop**
5.7g Total fat
1.9g Sat. fat



Pork boneless top loin chop**
6.6g Total fat
2.3g Sat. fat

Pork boneless sirloin roast*
7.0g Total fat
2.5g Sat. fat

Pork boneless rib roast
8.6g Total fat
3.0g Sat. fat

*Roasted **Broiled (Based on 3 oz. cooked meat, skinless or trimmed.)
A chicken thigh contains 9.3g of fat and 2.6g of saturated fat.
Source for pork and chicken data: USDA Composition of Foods Handbook 8 Series.

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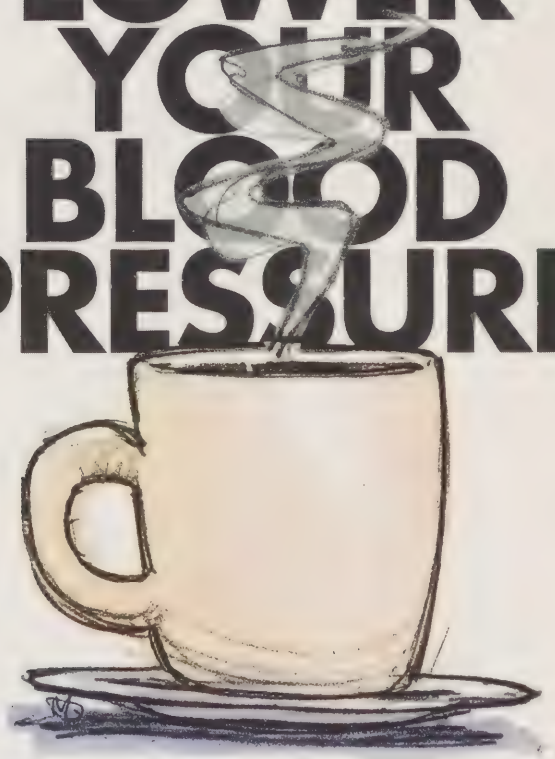

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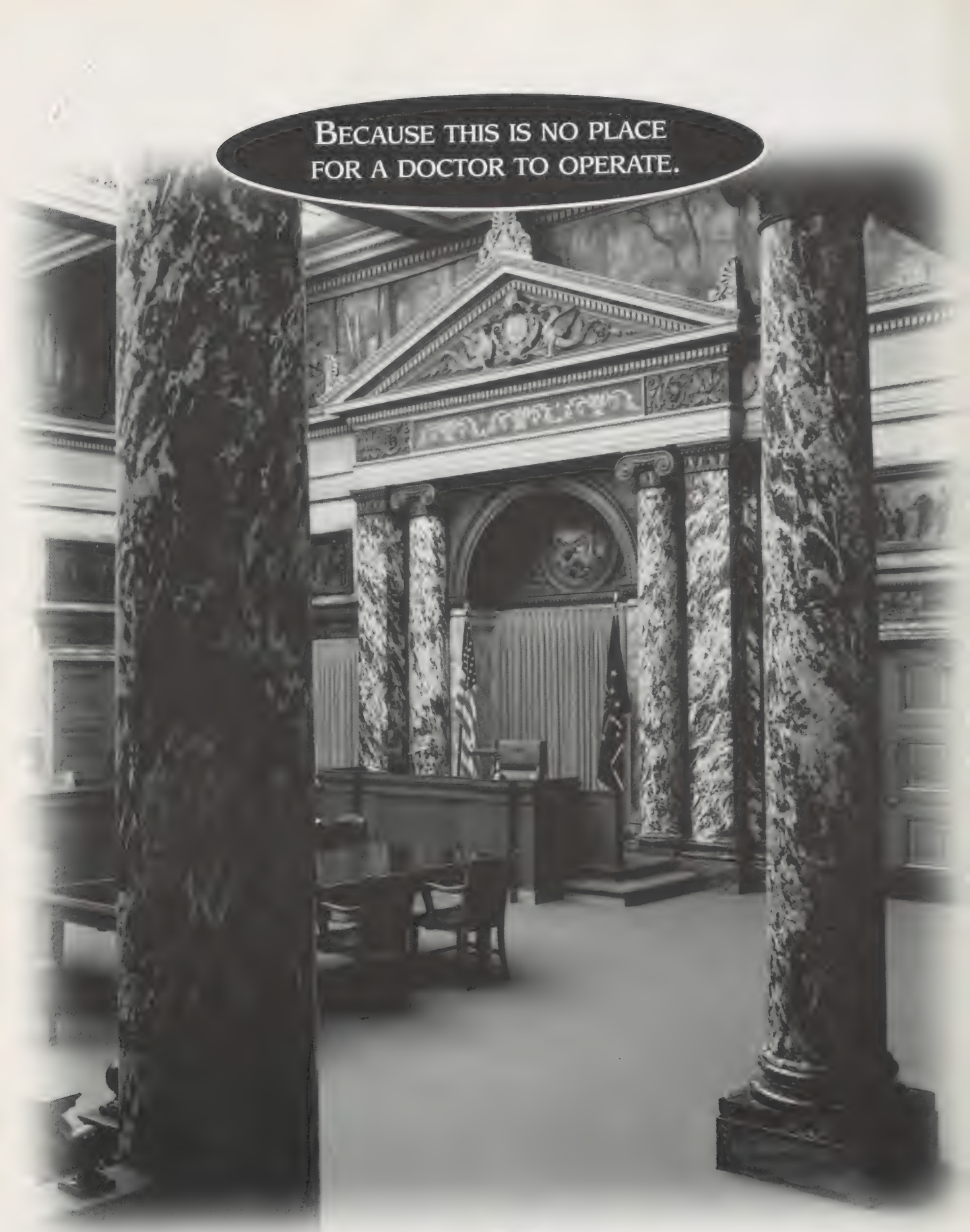
WMJ

November 1998

ORGAN DONATION AND TRANSPLANT SURGERY

When Time is of the Essence



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Organ Donation: Time is of the Essence

by Judith D. Burke, Director, Communications

Okay, do you want the good news or the bad news first? If we're talking about organ donation and transplant surgery, the good news is great: the incidence of successful transplant surgeries is on the rise as drugs are improved, candidates for transplants are identified sooner and are consequently less seriously ill, and the number of organs available continues to increase.

The bad news though is pretty dim: there are still far too many organs that are never used and far too many people who are not yet donors, who have never even been asked to donate.

Wisconsin has been in the news a lot recently because of the possible impact new Health and Human Services recommendations regarding distribution of organs will have on our state. The Organ Procurement and Transplant Network (OPTN) would require organs to go to the most needy recipients in the nation, as opposed to patients within the Organ Procurement Organization's (OPO) region.

Wisconsin is one of the most successful organ-donating and transplant surgery states. Our state's medical centers accept significantly more organs for transplant than the national average. Consequently, Wisconsin stands to lose the most if this initiative becomes law.

Congress has put a moratorium on the initiative for a year, and is sponsoring fact-finding efforts to determine which approach would best suit organ recipients across the country while preserving donation procurement systems that have taken years to build.

Whether OPTN becomes a reality or not, there is no disputing that the need for organs is great.

- Through September 9, 1998, there were 61,000 registrations on the UNOS National Patient waiting list for organ transplant (40,000 kidney transplant registrations alone).
- Each day, 55 people receive an organ transplant.
- Each day, 10 more people on the waiting list die because not enough organs are available.

For November, a traditional time of reflection in many cultures, the *WMJ* looks at organ donation and transplant surgery in Wisconsin.

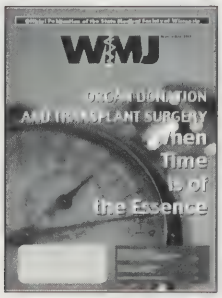
To start off, however, Julie Hein addresses the issue of contributing to our SMS Foundation to further promote the health of the citizens of Wisconsin in *Building the Foundation, Building the Future* **(page 5).** In honor of National Diabetes Month, Dr. Joe Blustein asks and answers the question *"What's Up With Diabetes?"* **(page 16).**

When Time is of the Essence by Marc Kennedy **(page 17)** examines the process for becoming a donor, criteria and popular myths, and more importantly for our readers, what to tell your patients about how to become a donor and how you might approach this highly-sensitive topic. *Wisconsin Donor Registry Proposal* **(page 24)** outlines a statewide organ and tissue donor registry, and *Moratorium on Transplant Law Pleases Wisconsin Experts* **(page 22)** delves into the controversy surrounding OPTN.

As we focus on the subject of transplants, I want to tell you that this Florida transplant is on her way back home: I've accepted the position of Executive Director with the National Perinatal Association, with headquarters in Tampa, FL. I am thrilled to have such an exciting and challenging opportunity before me, but I will certainly miss my Wisconsin ties. My 2-1/2 years as your Editor has been the most rewarding of my career. I am proud of our successes and accomplishments with the Journal and truly feel blessed to have worked with the many dedicated and committed physician members and the SMS staff on this fine publication. Please contact Kendi Parvin, the new Managing Editor, at SMS extension 221 or KENDIP@smswi.org for questions or concerns you may have regarding the *WMJ.*

WMJ

Official Publication of the State Medical Society of Wisconsin



COVER THEME
ORGAN DONATION AND TRANSPLANT SURGERY

So many factors are involved with organ donation and transplant surgery: making wishes known to family members, demystifying the myths, determining candidates for the procedure, to name a few.

Indeed, time is of the essence. It is crucial from the moment one life ends to the moment others are given new beginnings.

This month, WMJ *examines how you, as physicians, can ensure more people receive those second chances.*

Cover design by Scott Breuchel, TypeTronics

DEPARTMENTS

EDITORIAL

FOCUS ON
ORGAN DONATION AND TRANSPLANT SURGERY

November 1998

The *WMJ* (ISSN 0043-6542) is the official publication of the State Medical Society of Wisconsin and is devoted to the interests of the medical profession and health care in Wisconsin. The managing editor is responsible for overseeing the production, business operation and contents of the Journal. The editorial board, chaired by the medical editor, solicits and peer reviews all scientific articles; it does not screen public health, socioeconomic or organizational articles. Although letters to the editor are reviewed by the medical editor, all signed expressions of opinion belong to the author(s) for which neither the *WMJ* nor the SMS take responsibility. The *WMJ* is indexed in Index Medicus, Hospital Literature Index and Cambridge Scientific Abstracts.

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President's Page

Organ Donation: A Matter of Family

by John D. Riesch, MD

When I learned this issue of the *WMJ* would be devoted to organ donation, the question I've often wondered came to mind again: Why doesn't our country have a clear organ donation system intact? The registries vary from state to state, with some states, including Wisconsin, not even having one in place. Clearly, the benefits of organ donation are rewarding. However, I still believe families aren't discussing this option before tragedy strikes and many of us fall under the "it will never happen to me" category. Which raises another question: Why are so many people confused about the organ donation process? Are we in the midst of a bad (or non-existent) public relations campaign?

Perhaps what it will take is for our country to experience a heart-breaking incident, similar to the one in Italy for example. In September of 1994, Reg and Maggie Green of Bodega Bay, California were on a family vacation in southern Italy. Their seven-year-old son, Nicholas, was shot and killed by car bandits. Reg and Maggie made the decision to donate his organs. **Seven** recipients benefited from their decision. But an untold number were touched as a worldwide awareness regarding the importance of organ donation was generated. In Italy, those willing to donate their organs tripled, sparking what is now known as the "Nicholas Effect."

Back home, we still struggle with the confusion about the organ donation process, the myths associated with donation and how to express the urgent need for organs. The key word in all these questions and concerns is *family*. Family members must give consent at the time of a person's death in order to be an organ donor. It goes beyond the orange stickers on the Wisconsin driver's license, past the signature on an organ donor card. As physicians, we must express the need for our patients to explain their wishes to their loved ones.

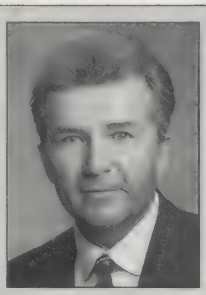
In the United States, the number of people waiting for a life-saving organ transplant is over 60,000. Thousands more are waiting for tissue transplants. Still, thousands of people die each year due to a lack of donors.

Let's educate our patients on the need for organ donation. Let's share our own feelings with our families today, so they can make this vitally important decision when the time arises. Until Wisconsin establishes an organ donor registry, we really have an awesome responsibility to educate our family and patients on this issue.

Reg Green said it best. "In this country eight or nine people die every day because of the failure of one organ. What a waste that seems. We can all help by . . .discussing this subject with our families. Talking about what could happen and how you deal with it needn't be upsetting and it prepares your mind if you are ever called to make that wrenching decision."

Nicholas Green helped seven people. That's just one story. One person. How many more people will be helped through organ donation? The answer will depend on how seriously we take this call to action. My family knows my wishes. Does your family know yours?

EVP Report



John E. Patchett, JD

The time of year is approaching when gift giving is prevalent and philanthropic activities increase. Before the holiday season begins I'd like to introduce our charitable campaign, the SMS Foundation Engraved Brick Pathway.

Upon completion of the renovation, the West Wing of the SMS headquarters will be dedicated to the Commission on the Center for Medical Practice Research and Education (Center). An engraved brick pathway leading to the West Wing will honor those donors who have so generously given $1,000 and above to the SMS Foundation during the past eight years and in the future.

At the October Board meeting, the Directors had the opportunity to view the finished areas of the renovated SMS headquarters in Madison. At press time, the finishing touches were being placed on the brick pathway leading to the West Wing. It's an exciting and rejuvenating time for the SMS. I invite you to stop by your SMS headquarters and see the changes for yourself.

If you do visit, be sure to meet Cindy Helstad, PhD, RN, Director of the Center and the Medical Outcomes Research Project. Doctor Helstad comes to us from the Dean Foundation for Health, Research and Education where she was a research scientist for its depression in primary care study. Her experience is extensive, including project director for several multi-state, multi-HMO studies and head nurse for the Meriter Hospital Eating Disorders Program. Doctor Helstad received her PhD in Industrial Engineering from the University of Wisconsin-Madison.

This month, I have asked Julie Hein, Executive Director, SMS Foundation, to further explain the Engraved Brick Pathway campaign. I know Julie and the SMS Foundation Board are excited about the new program. It's a wonderful opportunity for members and the public to demonstrate their support for the medical community.

I hope you will consider making a gift to the SMS Foundation as you decide your priorities for the season. We have an excellent program that helps ensure quality health care for all. Your contribution will support our work in this area for years to come.

Building the Foundation, Building the Future

by Julie Hein, Executive Director, SMS Foundation

Imagine a brick pathway leading to a building that serves as a forum for practice improvement research, quality assessment and improvement programs, and other life-long learning opportunities for health care professionals. The bricks are engraved with the names of the donors who have supported the goals and mission of the SMS Foundation throughout the years. The image is quite impressive and soon, will be very real.

The SMS Foundation is pleased to announce an exciting fund-raising campaign that coincides with the renovation of the SMS headquarters in Madison. To mark the inception of the Center, an engraved brick pathway has been established in front of the SMS headquarters. The Center's vision is to be one of the most innovative and premier continuing medical education institutions in the country. Your contribution is a lasting reminder of your commitment to improving care.

In addition to the Center, Foundation donors may choose to support public health care initiatives, student loans and scholarship funding. Indeed, the future of medicine will be advanced by all of these programs. It can only be done, however, through your support of the Foundation.

To receive a professionally engraved brick, several giving options are offered. They include: memorial gifts, planned gifts (a bequest in your will), gifts of stock, or a gift through an endowment life insurance policy. You can also indicate the type of program you would like your contribution to support.

The engraved bricks are available in two sizes. Donors with a cumulative gift of $1,000 up to $9,999 will be honored with a 12" x 12" engraved brick; for a giving level of $10,000 and above, a 24" x 24" engraved brick is offered.

The engraved brick pathway and the new Center for Medical Practice Research and Education will have ever-lasting marks on the advancement of public health and medical care for Wisconsin citizens. Please contact the SMS Foundation for more information on the engraved brick pathway campaign. Together, we can build the Foundation and build the future of medicine. . .brick by brick.

HIPPA Law on Medicare Home Health Care Plans Causes Confusion

Significant confusion has developed among physicians regarding their risks of liability in certifying a Medicare home health care patient plan of care. This confusion is the result of a new law passed as part of the Health Insurance Portability and Accountability Act of 1996, which subjects a physician to a civil monetary penalty where the physician certifies a patient as meeting Medicare coverage qualifications when that physician knows that the patient does not meet those qualifications.

Reports have surfaced from across the state that physicians have avoided certifying patients whose plans of care meet Medicare coverage criteria as the result of the threatened sanction from the new law. This fear, however, is unfounded unless the physician knows that the patient does not meet Medicare benefit qualifications, yet certifies that those qualifications are met. The standard of "knowing that all the requirements…are not met" would apply only in extremely limited circumstances – such as where the physician intentionally conspires with a home care agency to obtain Medicare reimbursement on behalf of a patient, knowing that the patient does not meet Medicare coverage criteria.

An unintentional error in the physician certification, or a matter where there is a possibility of professional disagreement, does not constitute a circumstance that meets the test of "knowing." The Medicare program would be required to establish not only that the patient fails to meet Medicare coverage qualifications, but also that the physician knew that patient's needs did not meet those qualifications and still certified the care as necessary for a patient confined to the home.

Physicians must also be aware of the consequences of failing to facilitate the treatment of a patient in the home setting as a result of unfounded fears of a sanction related to the Medicare physician certification requirements. Where a patient has unmet needs, there is a basis for claiming that the physician has failed to fulfill his or her duty to treat the patient. Accordingly, if the physician obstructs access to necessary home health services and the patient suffers an injury as a result, the physician is exposed to liability.

In summary, a physician is not subject to sanction if, in good faith, the physician certifies that a Medicare patient is in need of home health services and that the patient is confined to the home. Only in circumstances where it can be established that the physician knows that the patient does not meet Medicare coverage criteria is a sanction set forth.

Gurdon H. Hamilton, MD,
Marshfield

Shabby Sales Tactics or Shameful Acceptance of the Goods?

I was surprised and disappointed by the emphasis in Sheldon Wasserman's letter in your September, 1998 issue. Rather than to focus on shabby sales tactics demonstrated by pharmaceutical representatives, I would first and foremost question the venality of doctors who accept lunches for their clinic staff and many other much more costly gifts. After all, don't we still believe in noblesse oblige?

During my residency 20 years ago I was introduced to this undignified process when the Roche representative would show up in our secretary's office on alternative Thursdays (pay day) with a box of donuts. If we accepted the donut were we to prescribe Valium to our patients? I marveled at the low price which was assumed to be sufficient to buy us: one or two greasy donuts! It had been my fantasy that for $10 million I might consider selling my soul and running off to Argentina. But for a donut? Then I remembered G. B. Shaw's ruthless response to the actress who asked him if he thought she was a whore? "We've already established that Madam, we are simply negotiating the price."

Shame on US.

Victoria Lewin-Fetter, MD,
Milwaukee

Kevin Fullin, MD

Kenosha Physician Employs Trust to Stop Domestic Abuse

Abused women are breathing a little easier today, thanks to the numerous and innovative efforts of a Kenosha physician.

"Doctor (**Kevin) Fullin** has been an amazing advocate for victims of domestic violence," said Mary Lauby, Executive Director of the Wisconsin Coalition Against Sexual Assault. Lauby nominated Dr. Fullin for the SMS Physician Citizen of the Year Award, which he won this spring.

Seven years ago, the State Medical Society of Wisconsin opened the nomination process for the award to the public. Based on these nominations, the SMS Commission on Public Information selects up to eight winners from various medical society districts in the state.

Lauby says Dr. Fullin deserved the award because he has "done as much as anyone to demystify" the domestic abuse problem for physicians by writing articles for AMA and SMS publications, and for raising the issue in discussion groups.

Doctor Fullin, whose specialties are cardiovascular disease and internal medicine, spends his free time raising organic vegetables. "Gardening," he says, "gives me a chance to connect to Mother Earth."

Making a connection with his patients is even more important to Dr. Fullin—especially those who are threatened by abusers.

"It's important to convey to the woman that you believe her, and it's not her fault," says Dr. Fullin. "In domestic violence, isolation is the main thing that happens. The man who batters tends to isolate her from her friends, from other people, health care workers."

The Learning Curve

But Dr. Fullin hasn't always been so knowledgeable about this problem. He was astounded to learn just how serious this abuse is after attending a talk by the director of a local women's shelter. After hearing that domestic violence is the most common cause of injuries in women—more common than accidents and muggings combined—the doctor asked himself why *he* wasn't seeing this.

"I was a little curious that the statistics suggest it's in my patients, but I've never seen it," he remembers thinking. It was then that Dr. Fullin realized he hadn't been looking for it. That's when he began screening patients for domestic violence by asking whether somebody is hurting them or trying to control them. Doctor Fullin says the most important thing in posing such questions is to develop trust, so patients are more likely to confide in their physicians.

Enough patients confided in Dr. Fullin that he was able to start a support group at the local hospital for older women. He also developed a rather ingenious way of making sure his patients know where to call if they get into trouble. When Dr. Fullin learned that women feared their abuser might discover that they were carrying a hotline number, he figured out a way for them to inconspicuously carry it. He had the number printed on prescription bottles.

Physicians Key Players

A recent study suggests physicians are in a unique position to help battered women through this crisis. The author, a psychiatry professor at the University of Pittsburgh, found women who are depressed and abused almost always see a physician for physical problems, but less than 50% go in for counseling.

But domestic abuse victims don't always suffer obvious injuries like a black eye or a broken arm. Oftentimes, abusers threaten to kill the woman or take the couple's children, and the resulting stress may surface as worsening angina, hyperventilation or other ailments, according to Dr. Fullin.

"If we just treat them with sedatives or whole theories of diagnostic techniques, we're missing the opportunity to connect her with other resources that will address the underlying problem," Dr. Fullin said. "You become a more competent physician and you have a better relationship with your patient when you embrace being part of the solution to this societal problem."

"Physicians probably see many, many more victims of domestic violence than ever go through an emergency room," according to Lauby. "But what Kevin (Fullin) did was to help us bring some credibility, and illuminate the discussion we were trying to promote."

Doctor Fullin reminds his colleagues that they don't have to

Continued on p. 11

Who's In The News

Ricardo Almonte, MD

Lisa Benson, MD

Steven Bowman, DO

Manfred Effenhauser, MD

Ricardo Almonte, MD, joined Ripon Medical Center's team of emergency physicians. He earned his medical degree from the University of the East in the Philippines and completed his internship and residency in New York.

Pediatrician, **Peter Barbian, MD**, of Elm Grove, has joined the Covenant Medical Group and will be practicing at the Fine Lando Clinic in Cudahy and at the Rawson Medical Center in Franklin. He earned his medical degree from the Medical College of Wisconsin and completed his residency at the Marshfield Clinic.

Joining the medical staff of Community Memorial Hospital in Menomonee Falls are **Mahesh Belani, MD**, anesthesiology, Community Memorial Hospital; **Christine Berg, MD**, obstetrics/gynecology, Falls Medical Group-Northwest; and **Richard Shimp, MD**, emergency medicine, Infinity HealthCare Physicians.

Lisa Benson, MD, received the first Young Internist Award presented by the American College of Physicians/American Society of Internal Medicine during their fall meeting. She received her medical degree at the University of Minnesota School of Medicine, Minneapolis, MN, and completed her residency at the University of Iowa Hospitals and Clinics, Iowa City, IA. Following her residency, Dr. Benson joined the Marshfield Clinic.

Steven Bowman, DO, from the Franciscan Skemp Healthcare La Crosse Campus, is now providing occupational health services at the Sparta Campus. He received his medical degree from the University of Osteopathic Medicine and Health Sciences and completed his residency at the Iowa Methodist Medical Center/Des Moines VA Hospital, Des Moines, IA.

James Chaillet, Jr., MD, joined the Milwaukee office of Wausau Insurance Companies as a medical director for Wausau Preferred Health Plan-Southeastern Wisconsin. He previously worked at Family Health Plan Cooperative.

Physicians recently beginning their residency programs at Eau Claire Family Medicine Clinic are: **Lylanya Cox, MD**, **Joseph Guenther, MD**, and **Sara Schofield, MD**.

Cardiologist, **Albert J. Deibele, III, MD**, and internal medicine physician, **Bart Isaacson, MD**, joined the Marshfield Clinic-Wausau Medical Center. **Doctor Deibele** earned his medical degree at the University of Wisconsin Medical School and completed a residency at the University of Minnesota Hospital, Minneapolis. **Doctor Isaacson** earned his medical degree from the Medical College of Wisconsin, Milwaukee, and completed his residency at the Ohio State University Medical School, Columbus, OH.

Edsel Doreza, MD, an internist and nephrologist practicing in Walworth County, was elected a Fellow of the American College of Physicians-American Society of Internal Medicine. He practices at the Badger Health Center in Delavan and Lake Geneva Medical Center and is on the medical staffs of Lakeland Medical Center in Elkhorn and Beloit Memorial Hospital.

Noelle Dunn, MD, joined the medical staff at the Aurora Health Center in Slinger as a family medicine physician. She completed her residency at St. Luke's Medical Center in Milwaukee.

Lindy Eatwell, MD, medical director of Unity Hospice, Green Bay, was recently certified by the American Board of Hospice and Palliative Medicine, for his advanced study in the care of terminally ill patients. He also practices at Seymour Family Medicine Clinic, Green Bay.

Manfred Effenhauser, MD, retired after 35 years of medical practice at the Lake Mills Medical Center where he was known for his dedication to his patients and often saw them in their homes in emergency situations. He served as director of Rainbow Hospice of Jefferson County.

Seth Foldy, MD, was appointed Health Commissioner for the Milwaukee Health Department. He is also with the Medical College of Wisconsin, where he is a member of the Department of Family and Community Medicine, and serves with the Health Policy Institute.

Marshfield cardiologist, **W. Bruce Fye, MD**, with his collection of

Who's In The News

W. Bruce Fye, MD

Pauline Jackson, MD

Joseph Mazza, MD

John Merfeld, MD

medical textbooks and artifacts, will be showcased in a documentary titled, "Frontier Docs" on the History Channel. The program is part of the "In Search of History" series.

Craig Griebel, MD, joined the staff of Agnesian HealthCare. He earned his medical degree from the University of Missouri School of Medicine in Columbia and completed a family practice residency at Mercy/St. Luke's in Davenport, IA.

Joining the Marshfield Clinic-Lakeland Center are **Lorraine Jackson, MD, Delfin "Jim" M. Sabido, VIII, MD,** and **Michael Schaars, MD**. **Doctor Jackson** received her medical degree from Universidad Technilogica de Santiago, Santo Domingo, Republica Dominicana. She served internal medicine residencies at Sinai Samaritan Medical Center, Milwaukee, and Tucson Medical Center in Arizona. **Doctor Sabido** earned his medical degree from the University of the Philippines, Manila, and residency in internal medicine at Lincoln Medical and Mental Health Center/New York Medical College, Bronx, NY. **Doctor Schaars** earned his medical degree from the Medical College of Wisconsin and completed residencies in emergency medicine at Michigan State University-Kalamazoo Center for Medical Studies and at Gundersen Clinic and Lutheran Hospital, La Crosse, WI.

Psychiatrist and SMS Past President, **Pauline Jackson, MD,** retired from Gundersen Lutheran Medical Center. She is known for her work with the mentally ill and as the La Crosse area judges' expert on insanity issues. Judges called upon her for more than a quarter of a century to examine defendants in mental competency cases. She was president of the Wisconsin Psychiatric Association, member on the SMS Board of Directors for 10 years and the first female president of the State Medical Society.

Robert Jaeger, MD, of Rice Medical Center Obstetrics/Gynecology, was elected president of the University of Wisconsin Medical Alumni Association. He has served on the board since 1984, and is currently a member of its editorial board, long-range planning committee and chair of the awards committee.

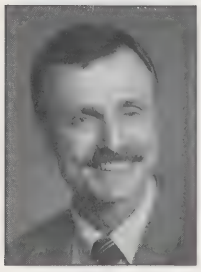
Psychiatrist, **Andrew Kessler, MD,** joined Huebner & Associates. He completed a psychiatry residency and fellowship at the University of Wisconsin Hospital in Madison. He is also a clinical assistant professor of psychiatry at the University of Wisconsin.

Genadi Maltinski, MD, a family practice and obstetrics physician with the Gillett Primary Care Clinic, was published in the *Primary Care Clinics*. The topic of his article was "Nasal Disorders and Sinusitis." He spent several years practicing medicine in Western Europe and received his training and became board certified in ENT in Siena, Italy. Doctor Maltinski has presented numerous lectures and symposiums on ENT topics in the United States and to the national Assembly of Family Medicine.

Business Health Services of Wisconsin has added **James Martin, MD,** to their occupational health team. He will serve as occupational medicine physician and medical director at the Fort Atkinson and Whitewater clinics. He also serves on the State of Wisconsin Worker's Compensation Advisory Council's Study Commission on Medical Cost and Quality for Worker's Compensation and the Wisconsin Council of Safety's Congress Planning Committee.

The highest award given by the American College of Physicians/American Society of Internal Medicine, The 1998 Wisconsin Laureate Award, was presented to **Joseph J. Mazza, MD,** at the organization's fall meeting. Doctor Mazza is Clinical Professor of Medicine, University of Wisconsin School of Medicine and Associate Dean, University of Wisconsin, Marshfield campus. He earned his medical degree from Loyola University in Chicago and completed a fellowship in internal medicine and hematology at Cook County Hospital in Chicago and at Mayo Clinic in Rochester, MN.

Who's In The News



John P. Przybylinski, MD

Douglas Reding, MD

Robin M. Reichert, MD

J. Garry Sack, MD

Family physician, **John Merfeld, MD**, is returning to practice with the Reedsburg Physicians Group after taking part in an internship program there seven years ago. He earned his medical degree from the Medical College of Wisconsin and completed his residency in La Crosse.

Retired Sheboygan physician, **James D. Michael, MD**, is an accomplished artist and his landscape paintings are on display at the Cedar Grove Library. He exhibits regionally and nationally and has taught watercolor painting at John Michael Kohler Arts Center in Sheboygan for many years.

West Bend Clinic internist **G. Michael Mosley, MD**, has been elected medical staff president at St. Joseph's Community Hospital of West Bend. **John Fink, MD**, pathologist and nuclear medicine physician at St. Joseph's, was elected vice president of its Board of Directors, and **Steven Holcomb, MD**, family physician at the General Clinic, was elected secretary/treasurer. **James Froehlich, MD**, family practice physician at the West Bend Clinic and **Joseph Schwartz, MD**, an emergency medicine physician at St. Joseph's, were elected as at-large members.

Charles Nelson, MD, a family physician and obstetrician has joined the Door County Memorial Hospital. He earned his medical degree from Rush Medical College, Chicago.

Emil Pajek, MD, joined New London Family Medical Center in their emergency department. He earned his medical degree from the Medical Academy at Gdansk, Poland, served his internship at St. Luke's Hospital in Bethlehem, PA, and completed his residency at St. Michael's Hospital and St. Joseph's Hospital in Milwaukee.

Internal medicine specialist from Marshfield, **John P. Przybylinski, MD**, was presented the Distinguished Internist Award by the American College of Physicians/American Society of Internal Medicine during the organization's fall meeting. He earned his medical degree from the University of Wisconsin School of Medicine, and completed his internal medicine residency at Marshfield Clinic/Saint Joseph's Hospital, Marshfield. He is currently medical director for the hospice program at Saint Joseph's Hospital.

Oncologist/hematologist **Douglas J. Reding, MD**, participated in "The March" on September 26. "The March," sponsored by the American Cancer Society, is a national rally of cancer survivors and supporters. They travelled to Washington to participate with their own communities, to demonstrate their belief that cancer is the nation's number one health priority and to voice concerns to federal, state and national leaders.

Family physician, **Robin M. Reichert, MD**, joined the staff of New Richmond Clinic. She earned her medical degree from the Medical College of Wisconsin and completed her residency at St. Michael's Hospital, Milwaukee.

Pediatrician, **Suzanne Rastorfer, MD**, joined the Rhinelander Regional Medical Group. She earned her medical degree from the Washington University School of Medicine, St. Louis, MO, and completed her residency at Children's Hospital of Michigan in Detroit. Doctor Rastorfer volunteers her time for Project Head Start, Project Literacy U.S. and Reach Out and Read.

J. Garry Sack, MD, Schofield, was awarded the American Academy of Otolaryngology-Head and Neck Surgery's prestigious Honor Award in September. The award recognizes those who have contributed service to the Academy with presentation of an instrument course or scientific paper or participation on a continuing education committee or faculty.

Thomas Saphner, MD, was elected a fellow of the American College of Physicians-American Society of Internal Medicine. He is a partner in Green Bay Oncology, a staff physician at St. Vincent and Bellin hospitals and a courtesy staff physician at St. Mary's Hospital Medical Center.

Peter Saunderson, MD, and **Mary Berg, RN**, of Plover Family Practice were featured in Ministry

Health Care's "Back to School Health" television special. The program featured information on vision tests, immunizations, preventing sports injuries, and fun and nutritious snacks for kids.

Marshfield Clinic-Mosinee Center announces the addition of family practitioner, **Karen Shulman, MD**, to its medical staff. Doctor Shulman earned her medical degree from the University of Western Ontario, London, Ontario, Canada and served her residency at St. Joseph's Health Centre, London, Ontario, Canada.

Pediatrician, **Mark Staszkiewicz, MD**, and family physician **Suzanne Wilkerson, MD**, have joined General Clinic in West Bend, an Aurora Health Care facility. **Doctor Staszkiewicz** completed his residency at the Medical College of Wisconsin and Children's Hospital in Wauwatosa. His area of special interest is chronic illness, such as asthma. **Doctor Wilkerson** completed her residency at St. Mary's Hospital in Milwaukee.

Gary Steele, MD, a physician at Brownsville Family Medical Center and Fond du Lac Regional Clinic, was featured on "Outdoor Wisconsin," a Public Television series.

Sridhar V. Vasudevan, MD, was elected Secretary of the Waukesha County Medical Society. He is Clinical Professor of PM&R at the Medical College of Wisconsin, Milwaukee and serves on the Board of Directors of AAPM&R.

Sauk Prairie Memorial Hospital & Clinics has announced that **Ellen Wermuth, MD,** will join **Hisham Osman, MD,** and the medical staff at River Valley Medical Clinic in Spring Green and that **Zbigniew Trojanowski, MD**, will replace retiring physician **Ihor Galarnyk, MD,** at the Plain Clinic.

AMA Awards

The SMS member physicians listed below recently earned the AMA's Physician Recognition Award. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations.

David E. Amos, MD
Vincent P. Banker, MD
Harvey H. Bernstein, MD
David A. Cleveland, MD
Robert A. Coe, MD
Andrew B. Crummy, Jr., MD
Warren H. DeKraay, MD
Jack L. Hughes, MD
Frederick W. Knoch, MD
Edward J. Krall, MD
Gregory R. Lochen, MD
Rodney W. Malinowski, MD
Judith A. May, MD
John W. Melski, MD
Carol A. Potts, MD
Michael J. Rieder, MD
John J. Smalley, MD
Robert J. Stanley, MD
Armond H. Start, MD
Susan L. Turney, MD
Timothy J. Wengert, MD
Scot A. Wilfong, MD
Michael R. Yaffe, MD

Physician Citizen of the Year — Continued from page 7

have all of the answers to this complicated social problem, but can help start their patients along a better, safer road. "There are resources in the community through the women's shelter and the domestic violence project that can help her break out of the isolation," he said.

The Physician Citizen of the Year Award honors its recipients for the uncompensated civic, cultural, economic and charitable services they have provided to their local or state communities. It recognizes physicians like Dr. Fullin, who have given of themselves to improve their community and state.

"(Doctor Fullin) did the unusual thing of taking a personal interest," says Lauby.

In Remembrance

Callan, Robert E., MD, 82, of Wauwatosa, died on September 15, 1998. He earned his medical degree from Marquette University Medical School and interned at St. Louis University hospitals. Doctor Callan was a flight surgeon with the 15th Army Air Corps serving in Italy during World War II and received the Bronze Star, eight Battle Stars, and two Presidential Unit Citations. He was president of the medical staff of Misericordia Hospital, now Elmbrook Memorial Hospital, and on the staff of St. Joseph's and St. Mary's in Milwaukee until his retirement. He was past president of the Wisconsin Academy of General Practitioners and of the Council on Health of the state's Division of Health. Doctor Callan was speaker of the SMS House of Delegates from 1960-1967, President of SMS in 1969-1970, a Fellow with the American Academy of Family Physicians, and member of the SMS 50 Year Club.

Doctor Callan is survived by his wife, Mary; four children, Robert, of Williams Bay; Kathleen Brady, of Wauwatosa; Anne Trunzo, of Delafield; and Joan Biasetti, of Chicago.

Grimm, Joseph J., MD, 97, of Milwaukee, died on September 13, 1998. He earned his medical degree at Loyola University, Chicago, and trained in ophthalmology and otolaryngology at a Chicago hospital. He served in the US Navy during World War II and was chief of ophthalmology and otolaryngology services at a US Navy fleet hospital in the South Pacific. He practiced in the South Milwaukee area for 53 years before his retirement in 1984 and was a Life Member of the State Medical Society.

Doctor Grimm is survived by five children: Yvonne Mallory, of Toledo, IA; Joseph, of Boston; Laurie Van Tuinen, of Waukesha; Michael Grimm, of East Lansing, MI; and Circuit Judge Peter Grimm, of Fond du Lac.

Herbert, Timothy G., MD, 50, of Marshfield, passed away on August 3, 1998. He received his medical degree from the University of Colorado and served his internship and residency in surgery and diagnostic radiology at David Grant Medical Center at Travis Air Force Base in California. Doctor Herbert served in the US Air Force from 1970 to 1984 and the Air Force Reserves until 1991. In 1984, he joined the Marshfield Clinic, where he practiced until his retirement in 1997.

Doctor Herbert is survived by his wife, Sandra; three sons, Matthew, of Marshfield; Benjamin, of the University of Minnesota; Daniel, of Marshfield; and two grandchildren, Cassandra and Nicholas Steele.

Kern, Theodore J., MD, 90, general practitioner and surgeon, passed away on July 22, 1998, in Hartford. He earned his medical education from Marquette University in Milwaukee, served his internship in Cook County and at Milwaukee County General Hospital, and completed his residency at St. Bernard Hospital, Chicago. Doctor Kern began his practice in 1934 in Richfield where he worked for over 20 years before moving to Hartford. He retired in 1976. He was a member of the SMS Fifty Year Club.

Doctor Kern is survived by his wife, Virginia; five children, Patricia (Paul) McCune, of Hartford; Ronald (Patricia), of Milwaukee; Barbara, of Hartford; Michael (Dianne), of Hartford; Kathleen (Richard) Aicher, of Green Bay; and 11 grandchildren.

LaFond, David J., MD, 71, of Elm Grove, died August 8, 1998. He earned his medical degree from Marquette University Medical School and completed his internship and residency at Milwaukee Hospital. Doctor LaFond served in the US Naval Reserves from August 1945 to February 1947. He was past Director of Laboratories at Milwaukee Hospital/ Lutheran Hospital of Milwaukee, Sinai Samaritan Medical Center; President of American Society of Clinical Pathologists, 1978 to 1979 and the 1994 recipient of the Ward Burdick Award for Distinguished Service to Clinical Pathology.

Doctor LaFond is survived by his wife, Betsy; his daughter, Anne (Colin Scott) La Fond, of Alexandria, VA; and grandchildren, Dylan and Ava.

Ryder, Edward K., Jr., MD, 75, of Madison, passed away on September 5, 1998. He earned his medical degree from the University of Rochester Medical School in New York, and completed his internship and residency in internal medicine at the University of Ohio State, Columbus, OH. Doctor Ryder served in the US Air Force during the Korean Conflict and was one of the original 13 physicians at the Dean Clinic on North Carroll Street, Madison. He practiced at the Dean Clinic for 35 years and was a past president of the Wisconsin Society of Internal Medicine.

Doctor Ryder is survived by his wife, Barbara; four children, Katherine (John) Ryder-Welter, of Eau Claire; Elizabeth (John) Reagan, of Eau Claire; E. Kirk (Elizabeth), of Green Bay; John (Barbara), of Waupaca; and eight grandchildren.

Welcome New Members

The individuals listed below were recently elected to SMS membership by their County Medical Societies. We are pleased to welcome them to the SMS.

Ashland-Bayfield-Iron
Gerald M. Kubik, MD
Mayanaz Syeda-Mian, MD

Brown
Brian D. Dobbins, MD
Jason Hoppe, MD
Frank R. Mattia, MD
Tangee N. Sinclair, MD
George D. Soncrant, MD
David B. Sze, MD

Chippewa
Sharon R. Hayward, MD

Clark
Wesley R. Bagan, MD

Columbia-Marquette-Adams
Nadine French, MD
Jeffrey T. Snyder, MD
Elizabeth R. Strabel, MD

Dane
Nathan Andrew (S)
Flavio A. Arana (S)
Ahmed El-Sayed Ayoub, MD
Christine Babcock (S)
Jamie N. Bakkum (S)
Laura J. Berghahn, MD
Lyssa N. Bierig, MD
Kristin M. Brener (S)
Carrie Buros (S)
Michael F. Carroll, MD
Robert Chang (S)
Polo Chen (S)
Robert L. Cirillo, MD
David J. Ciske (S)
David A. DeAngeles, MD
Andrea DeMets (S)
Lana A. Doxtater (S)
Daniel J. Ecklund, MD
Rebecca C. Eder, MD
William J. Ehlenbach (S)
Marni Grage Feldmann (S)
Mark Flanum (S)
Jeremy S. Forster (S)
Pastora Garcia-Jones (S)
Cheryl Gehin (S)
Marie A. Genske (S)
Steven B. Greenberg (S)
Alma Guzman (S)
Kristen B. Hakes (S)
Carlene M. Hallberg (S)
Allen Hayman (S)
Tari Hermanson (S)
Joanne M. Holland (S)
William D. Hunter, MD
Cassandra A. Igowski (S)
Carolyn I. Jacob, MD
Brad Javorsky (S)
Tammy A. Johnson, MD
Deborah M. Kail, MD
Tadge M. Kanjo, MD
John Kaufman (S)
Neil Kennedy (S)
Michael L. Keown, MD
Nathanial I. Kieler (S)
Anne Kilby (S)
Michael Klevay (S)
Melissa Koller (S)
Raymond J. Kotwicki, MD
Kori K. Krueger (S)
Timothy R. Lair, MD
Jean M. Larsen (S)
Paul R. Larson, MD
Byung Lee (S)
Daniel K. Lee (S)
Don S. Lee (S)
Benjamin Lerner (S)
Jocelyn Libby (S)
Anna Lin (S)
Kristen Lindgren (S)
Matthew T. Lister (S)
Matthew L. Lynch (S)
James D. Maloney, MD
Shannon Mason (S)
Heather M. Matthews (S)
Patricia J. McGuire (S)
Scott M. Mead (S)
Jennifer L. Neels (S)
Steven R. Neish, MD
Kaci L. Osenger (S)
Russell K. Pachysnki (S)
Peter A. Pickhardt (S)
Anthony E. Pilch, Jr. (S)
Harvey A. Pollack (S)
Vitaliy Poylin (S)
Sharad Rajpal (S)
Venkat K. Rao, MD
Peter Redford, MD
David Sadler (S)
Matthew S. Sager (S)
Bryan Sauer (S)
Derek T. Schneider (S)
Margaret A. Schultz (S)
Tara Schulz (S)
Julie A. Schurr, MD
Joshua S. Sebranek (S)
Sunil Sharma, MD
Donna Singer (S)
Cynthia Singley (S)
Joel D. Smukowski, MD
Nicole Sroka (S)
Jennifer Stevens, MD
David S. Stolp (S)
Sharon A. Swencki (S)
Rod Tarrago, MD
Sonja Brown Tarrago, MD
Mindy A. Tatera (S)
Nicholee R. Theiss (S)
Heather L. Toth (S)
Michele Tracy (S)
Gretchen E. Twork (S)
Kenneth J. VanDyke, Jr. (S)
Joshua J. Ward (S)
Jennifer Weiser (S)
Bryan S. Wichman (S)
Beth A. Wiedel (S)
Andrew S. Wright, MD
Andrew J. Ziegert (S)

Douglas
Wendell R. Bonner, MD
William J. Durie, MD

Eau Claire-Dunn-Pepin
Lylanya Cox, MD
Ricky C. Jensen, MD

Fond du Lac
Keith A. Kastelic, MD
Faye Concetta F. Samonte, MD
Helen E. Sponseller, MD

Grant
Shahid J. Hayat, MD

Jefferson
Nancy Harris, MD
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James E. Meade, MD
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The State Medical Society of Wisconsin is asking the people of Wisconsin to nominate physicians for this honor. The Physician Citizen of the Year Award was created to recognize physicians who volunteer their time and talents to help others through cultural, civic or charitable efforts and events. Please tell us about a physician you think is worthy of this award.

Here are the rules:

- The physician must be a Wisconsin resident.
- The physician must be either a MD or DO.
- Except in unusual circumstances, the service to the community should be uncompensated.
- Previous winners of the award are not eligible. (You will be notified if the physician you nominate is a previous winner.)

How to nominate someone:

Write to the State Medical Society and provide:

- The name of the physician.
- The physician's home or office address.
- Your name and address.
- Why you think the physician deserves to win: What has the physician done for the community?

Send your nomination to:
Commission on Public Information, Attention: Dawn Carlson, State Medical Society of Wisconsin, P.O. Box 1109, Madison, WI 53701, FAX (608) 283-5401 or e-mail to: DAWNC@smswi.org
Or call: (800) 362-9080, ext. 243 for a nomination form

The deadline for submitting nominations is Jan. 15, 1999

Guest Editorial

What's Up with Diabetes?

by Joseph N. Blustein, MD, MPH

November is National Diabetes Month. Treat your diabetics right by continuing to encourage proper diet, education and exercise, strongly counsel against smoking, prescribe prophylactic aspirin, check blood pressure, feet and eyes regularly, evaluate serum lipids, hemoglobin A1c, and microalbumin and appropriately treat abnormalities early. Your diabetic patients deserve the best care to optimize their chances of healthier longer lives. That is what's up with diabetes.

The recent published findings of the UK Prospective Diabetes Study showed that tight blood pressure control in patients with hypertension and type 2 diabetes results in better outcomes.[1] During the study period, mean reduction in blood pressures, between tight control and less tight control, were 10 mm Hg systolic and 5 mm Hg diastolic. This intervention resulted in a significant decrease in both diabetic related mortality (32%) and diabetic complications (24%). In addition to saving lives and reducing morbidity, tight blood pressure control is a cost effective intervention.[2]

Diabetes is a major cause of blindness, amputations, kidney failure, and cardiovascular disease in Wisconsin.[3] In 1996 Wisconsin inpatient hospital charges where diabetes was the principal diagnosis were in excess of $60 million.[4] Decreasing complications through better glycemic and blood pressure control, routine monitoring with early treatment and implementing prevention and risk reduction strategies are things we can do.

In July of this year, the Wisconsin Diabetes Control Program was awarded a comprehensive grant. The goal of this program is to address diabetes issues across the state. Through the efforts of the Diabetes Advisory Group, 'Essential Diabetes Mellitus Care Guidelines' were developed and distributed.[5] If you are interested in disseminating these guidelines or want to become more involved with the Diabetes Advisory Group, contact Faye Gohre at 608/261-9422.

The State Medical Society will be starting a medical outcomes research project on diabetes. Their vision is to develop an outcomes component to complement and measure the effectiveness of adherence to the diabetic guidelines published earlier this year in the *WMJ*. If you are interested in being on the study group or want more information, contact Cindy Helstad, PhD, at 608/257-6781.

MetaStar is committed to improving outpatient diabetic care. We work with clinics, systems and HMO's using quality improvement methodology. The current project has three diabetic indicators: annual dilated eye exams, annual foot exams and twice yearly hemoglobin A1c's.[6] Baseline and follow-up data are collected and improvement activities are implemented. This project, under MetaStar's Medicare contract, is provided with no external costs to collaborators for our services. If you are interested in finding out more, contact Kris Miesbauer at 608/274-1940.

Diabetes outcomes can be modified. You can make a difference in helping your diabetic patients live longer, happy lives. Reducing the burden of diabetes through improved care is something we can and must do. That is what's up with diabetes.

Doctor Blustein is Medical Director at MetaStar and Ophthalmologist at the Madison Community Health Center. He is the chair-elect for the Wisconsin Diabetes Advisory Group.

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When Time is of the Essence

by Marc Kennedy, Special to WMJ

Wisconsin Leads Nation in Organ Procurement, But Clock is Ticking as More Patients Await Transplant Surgery

On a slick highway just south of Green Bay on a chilly November night, a vehicle going 70 miles an hour brakes to miss a deer that darts from the roadside. The car slides, strikes a guard-rail then spins out of control, and flips over several times. An hour later, doors to an emergency room burst open as EMTs hustle the driver and sole passenger, a 26-year-old comatose male with massive cerebral trauma, in from the ambulance. After exhaustive efforts to stabilize the young man, he is transferred to the Intensive Care Unit, where he is kept alive on a respirator.

After two days in the ICU, tests indicate that the patient is legally brain dead. Following somber discussions with the patient's family, the focus shifts from saving the young man's life to exploring the possibility that some good may come from such a tragic event. With the family's consent, blood and tissue typing tests begin to determine if the accident victim can become an organ donor, and the staff contacts the regional Organ Procurement Organization (OPO) which alerts its recovery team.

A 48-year-old woman who has spent 10 months on a waiting list will get a heart; a 10-year-old boy will receive a healthy kidney; and two young daughters learn that their 35-year-old father will likely be around to watch them graduate from high school thanks to a new liver.

One life is lost, yet three others are saved — thanks to the incalculable generosity of the donor's family, the cooperation of the ICU and clinic, and the expertise of the transplant team. Similar scenes are repeated several hundred times each year across the country with the increasing success of organ transplantation. Medical researchers have improved methods to preserve organs longer and better from the time they are harvested from the donor until transplanted into the recipient, and have enhanced potency of immunosuppressive drugs to combat tissue rejection.

Continued on page 19

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When Time is of the Essence — Continued from page 17

While transplant surgeons have continued to improve their techniques, their procurement staff have labored to develop relationships with hospitals and clinics in their regions to educate professionals and inform the public of the urgent need of the thousands waiting on transplant lists.

Wisconsin has historically led the nation in organ donation, with two major OPOs — one based in the Milwaukee area which feeds programs at Froederdt, St. Luke's, and Children's Hospital of Wisconsin; and the other at the UW Medical School in Madison which works with the other hospitals in the state.

Successful organ transplants have become commonplace. The only transplants considered novel today involve multiple organs or signify a particular benchmark — "XYZ Hospital transplanted its 100th liver today..." Many medical professionals as well as members of the lay public may take organ transplantation for granted, but for those involved in the process, it is still an uphill struggle. For just as the roll call lengthens for those who are alive today thanks to organ transplantation, the number of those on the waiting list continues to grow.

The above scenario recounting a successful organ donation happens in reality in between one-third to one-half of the time in the cases of eligible donors, according to experts. Mainly, they point to a lack of public and professional education. In some parts of the country, transplant centers have not adequately developed systems to communicate and cooperate effectively with regional hospitals and clinics or to reach out to the public via civic groups or publicity campaigns to demystify organ transplantation and dispel urban legends and folklore that confuse or frighten, and hence deter, many potential donors and their families.

Organ Procurement: Time, Effort and Dedication

"It's always been tough to obtain donors," said Robert Hoffman, Director of the University of Wisconsin Hospital Organ Procurement Service at the UW Medical School in Madison. "But we can be thankful that in Wisconsin ever since we started keeping numbers we've been number one or number two in organ donations in the nation."

This success is no accident.

"Our people are great," said Hoffman. "Our staff here in Madison and the hospitals in our catchment area really support the effort. They are proud of it and they should be. In the years I've been here, I've never recalled a time, even in the dead of winter, that people did not respond, on either end, when it came time to jump into action. In our OPO, we have about 80 hospitals, mostly small, community-based. Though they are rarely involved in an organ transplant, they still are helpful with tissue and cornea transplants."

Developing rapport with numerous community clinics and hospitals does not occur overnight; it takes dedication, planning and diplomacy to establish these relationships.

"We've worked on this for 30 years," said Mark Adams, MD, professor of surgery at Medical College of Wisconsin and chairman of organ transplantation, who works out of Froederdt Hospital. "We've developed a successful program here and at UW in Madison, of course, due to the expertise, but it is also due to relationships with clinics and hospitals to provide donor organs. Everyone is involved — at the grassroots level; the small community clinics and hospitals working with the transplant centers. This is not true for other places in the country."

Hoffman reiterated that developing these grassroots ties is one of the main reasons for establishing a successful transplant program.

"We send our people out to clinics and hospitals to help establish these relationships," said Hoffman. "We'll hold seminars and workshops and work with them to help create programs that work for both of us."

Once they have solidified such a relationship with a hospital or trauma clinic, it becomes a smooth running system.

"A clinic will call our office and explain that they have a brain-dead patient," Hoffman said, "they report the vital signs, give us blood chemistry, and check organ function."

Once these variables check out and the family gives its permission for donation, UW sends its surgical team to the clinic.

"We go to the hospital or clinic, remove the organ, do tissue typing and blood match, then call in appropriate recipients, unless they are in the hospital. Heart and liver patients are generally very ill and have been here."

Hoffman added that the sickest patients have priority for hearts and livers, while children are first to receive kidneys "because they can't grow without healthy kidneys."

When asked how long someone has to wait for a kidney, Hoffman produced a stack of paper a half-inch high, with names on both sides of each page.

"We probably have a thousand names here," he said quietly.

How the System Works

Cathy West, RN, got involved with organ donation about seven years ago when Theda Clark Medical Center in Appleton

Myths and Facts about Organ and Tissue Donation

The following are some commonly held misconceptions regarding organ donation and transplants. Physicians can dispel the myths and encourage patients to consider organ donation by discussing the facts.

Myth: Wealthy people can buy organs. That is not fair.

Fact: It's a federal crime to buy or sell organs and tissues. Factors such as race, gender, age, income or celebrity status are never considered when determining who receives an organ. The organ allocation and distribution system is based on many factors including blood type, length of time on the waiting list, geographical location, severity of illness and other medical criteria. There is no way to buy a place on the waiting list.

Myth: Doctors may let me die so they can transplant organs to their other patients.

Fact: Doctors who treat patients at the time of death have nothing to do with donation or transplantation of their organs and tissues. Every effort is made to save the patient's life before donation can be considered.

Myth: It costs money to donate.

Fact: It costs nothing to donate.

Myth: Donation disfigures the body and delays the funeral.

Fact: Donation does not disfigure the body or change the way a person looks in a casket. Donated organs and tissues are removed surgically, as in a routine operation. Most donations take place within 24 hours after death and therefore wouldn't delay funeral arrangements.

Myth: My religion opposes donation.

Fact: All major religions – Roman Catholicism, Protestantism, Judaism, Hinduism, Islam, Buddhism – fully support donation.

Myth: Business travelers are drugged and their kidneys stolen to be transplanted on the black market.

Fact: Although this myth continues to flourish on the Internet and other media outlets, it has never been substantiated. This has never occurred in the US or any other industrialized country. It has no basis in the reality of organ transplantation. See http://www.unos.org for more information.

Myth: Signing a donor card is pointless.

Fact: Signing a donor card, and discussing your decision with your family members, is the best way to assure that your personal wishes will be carried out. Furthermore, in the state of Wisconsin, a signed donor card is a legal document and cannot be revoked or over-ruled.

Myth: Transplants don't really work. They are experimental.

Fact: Americans receive more than 19,000 solid organ transplants and 450,000 tissue transplants annually. Transplantation is a standard medical procedure, and survival and success rates are extremely high.

Myth: Donation is painful for the donor's family.

Fact: Studies show that donation most often provides immediate and long-term consolation. Donation can be especially comforting when the death is unexpected and the donor is young.

Myth: Organ donors must be young individuals without prior health problems.

Fact: The general age criteria for organ donation is newborn to 70 years. Patients with diabetes, hypertension, prolonged COPR or infections can still possibly donate.

Sources: Musculoskeletal Transplant Foundation and Wisconsin Donor Network, Milwaukee

developed a trauma program and brought a neurologist and neurosurgeon on staff.

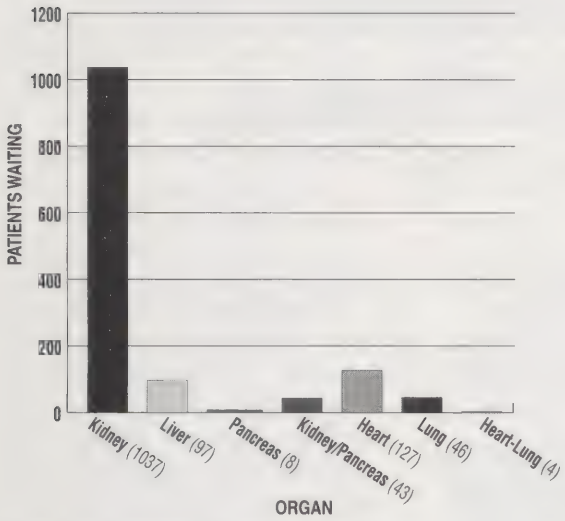
"We then started dealing with car accidents, and other situations in which there were brain-dead patients," explained West. "We started developing a wonderful relationship with the UW transplant team then. They really helped us; they came up and held seminars on bone and tissue typing, and were very receptive in helping us set up death records appropriately, learning different protocols and what we had to do to follow them. The more you know, the more you can put your heart and soul into it."

Which is exactly what West did, becoming the organ donor program coordinator. Part of the role was to work with the transplant team in Madison, and learn to work with family members in perhaps the most difficult of situations.

"When I first started in ICU, I really didn't want to discuss it," she said. But after a while she better understood the need to broach the subject with grief-stricken families, and the need to do so appropriately.

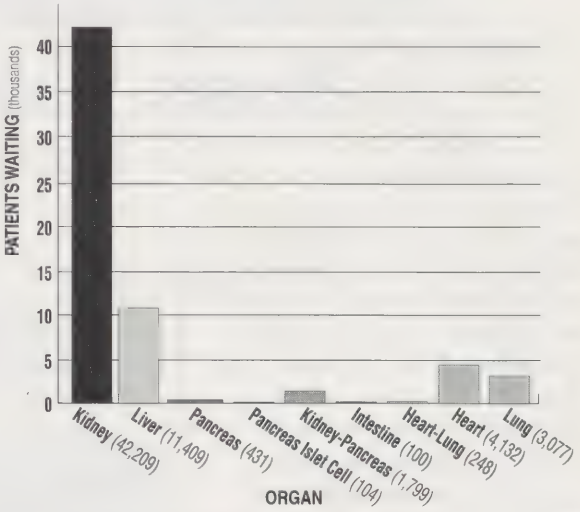
"We developed ways to get information to families the best

People Waiting for Organ Transplants in Wisconsin
As of August 31, 1998



Source: Wisconsin Donor Network

Facts About Transplantation in the United States
The UNOS national patient waiting list for organ transplant contains over 62,000 registrations.
As of October 7, 1998



Source: The National Organ Procurement and Transplantation Network

way," she explained. "We realized that we just had to be there to present options, that perhaps organ donation might help them deal with death of loved one, knowing that someone else might live. We never forced information on families.

"As I became more involved, it became a passion for me," said West. "We would speak to numerous community and professional organizations about organ donation, as well as high schools."

West left Theda Clark – which now sends an average of between eight and 15 donors to the Madison OPO annually – to work with another area neurology group, but still remains active in organ donation. She still serves on the committee that she helped establish as organ donor coordinator.

Why the Organ Shortage?

Despite efforts by Adams, Hoffman, West and countless others to increase organ donations, the numbers continue to remain at about 5,000 per year.

"That has been the story for the last 15 years," said Hans Sollinger, MD, professor of surgery at the UW Medical School and chairman of the organ transplant program. "And there are more than 60,000 people waiting out there for organs. Even if everyone who could donate did, there still would not quite be enough organs."

> *"Though it is better in Wisconsin thanks to our relationships with other medical centers, nationally 38% of families of people who could become donors decline. Plus, in 12% of other cases, health care professionals fail to approach the families. That is potentially 50% more organ donations than we are getting currently."*
> *—Hans Sollinger, MD*

Though about 20,000 people die each year from highway accidents, and many others from conditions such as brain aneurysms, not all organs may be suitable for transplant for a variety of reasons, such as infections and other injuries.

In addition, there are more people becoming eligible for transplants each year. Increased insurance coverage for many transplants has increased the number of patients on the waiting list. For most kidney transplants, the federal government covers 80%, with the state of Wisconsin covering most of the rest. Private insurance and Medicare often cover other types of transplants.

"In some ways, it seems success has created a problem," said Hoffman, "more people are becoming candidates for transplant, but the donor numbers remain the same."

Transplant experts are at somewhat of a quandary over why donations have plateaued.

"Though it is better in

Continued on page 45

Moratorium on Transplant Law Pleases Wisconsin Experts

by Marc Kennedy, Special to WMJ

Congress and the President recently agreed to put a one-year moratorium on new regulations establishing what is known as the Organ Procurement and Transplantation Network (OPTN). OPTN would require donor organs to be sent to the sickest patients across the country. The current system distributes organs to needy patients within particular Organ Procurement Organization (OPO) regions.

Wisconsin's two OPOs have historically have had among the highest organ donation rates in the country. Experts fear that such a law would end up causing a decrease in useable organs due to long trips across the country. They also worry that families of donors may be less likely to sign off on donations if they feel the organs are going across the country rather than staying in state. And, they believe such a rule would penalize successful systems that have taken years to develop, as in Wisconsin.

"Obviously, I am very pleased," said Hans Sollinger, MD, transplant division chairman for UW Hospital in Madison. "We have taken years to develop good relations with our hospitals and clinics in obtaining organs, and under this new law we would have become an exporter of organs, only because some of the other OPOs around the country are not doing their job as well as we do."

Bob Hoffman, who directs the organ procurement program at the UW OPO, said that OPTN, which would only involve liver transplants at first, may be a good idea on paper, but not in reality.

> *"Wisconsin's OPOs are the best in country. We don't want to lose what we've developed over last 30 years. We're glad to see that Congress got involved to put a moratorium on [OPTN] until next year.*
>
> *"But if the IOM can show that there can be a system that can work for all without sacrificing our long-term efforts, we will be willing to listen."*
>
> *Paul Volek, Director, Wisconsin Organ Network*

"Morally, it might be the right thing to do, but practically, it would be difficult and costly," said Hoffman. "Sending livers across the US, say from Madison to Los Angeles is $15,000 for transportation alone. It think it would harm existing programs like ours that have developed good systems."

In addition, transplant experts worry about the state of organs when dealing with extended travel times.

"The window is about 24 hours," said Hoffman, "but surgeons start worrying at about 15 hours."

The moratorium was prompted, in part, by a lawsuit filed by the state of Louisiana against Donna Shalala, Secretary of Health and Human Services, over this initiative. However, Louisiana dropped its suit, for the moment, once the moratorium became effective, and the Institute of Medicine (IOM) agreed to study the issues at hand before the regulations would be considered again next year.

"We're waiting to see what happens," said Paul Volek, director of the Wisconsin Organ Network, the other OPO in the state based around Milwaukee and 11 eastern counties. "Wisconsin's OPOs are the best in country. We don't want to lose what we've developed over last 30 years. We're glad to see that Congress got involved to put a moratorium on it until next year.

"But if the IOM can show that there can be a system that can work for all without sacrificing our long-term efforts, we will be

willing to listen."

Others are less diplomatic. They see this as an effort by a handful of centers that are politicizing a health care issue unnecessarily.

"The way I look at it is this: you have two lumber companies, one in Wisconsin, another in Pennsylvania," said Mark Adams, MD, professor of surgery and chairman of organ transplantation at Medical College of Wisconsin and at Froederdt Hospital. "In Wisconsin, we do it right. We cut, and replant, cut and replant. In Pennsylvania, they clear-cut, find that they have run out of trees, so then they come looking for Wisconsin lumber."

"If you are doing a lousy job at procuring organs in your own area, then you have to go elsewhere," Adams added. "But they don't want to make changes. They haven't invested the time into dealing with clinics and hospitals, building these interpersonal relationships, explaining the details and positives."

Ironically, said Adams, if every transplant center rose to Wisconsin's donation levels, there would be no need to send organs around the country. Another irony involves the law.

"The law in Louisiana says it is not legal to export organs out of state. So does Wisconsin. If I were to follow this federal initiative, I'd be violating state law, and vice versa."

If the initiative does survive the protests and becomes effective next year, it will likely tear the guts out of the organ donation program that many have worked passionately for years to develop.

"If this goes through, I think we will see a drop here in organ donations," said Adams, who added that it would demoralize those closely involved in the Wisconsin OPOs. "I work at this for years because it helps my program. If the organs go to Chicago, I'll not be inclined to spend weekends and weeknights talking to groups about the need for organ donation."

Wisconsin Donor Registry Proposal

This proposal is a draft prepared by the Wisconsin Donor Network, Milwaukee, WI. Initially drafted in 1992, it was inspired by the success of the donor registry in the state of Louisiana and as a natural next step relative to the 1989 Wisconsin Anatomical Gift Act. It was updated October 1998 in an effort to renew discussion about the suitability for a statewide organ and tissue donor registry.

Introduction

The number of patients waiting for organ and tissue transplants in Wisconsin is at its highest level ever. The combined waiting lists for Wisconsin's four organ transplant centers in October 1998 totaled over 1,300 patients. Nationally, over 60,000 individuals are waiting for organ transplants. Unfortunately, many of them, including Wisconsin residents, will die without having had an opportunity to receive this life saving procedure.

Opportunity

Assuming that effective systems have been established within hospitals to identify patients who may progress to potential donor status, the intent and/or wishes of the patient or family must be determined. Traditionally, this has required a conversation with the legal next of kin and the obtaining of a formal consent for organ or tissue donation. In a climate favorable to patient self-determination, the longstanding alternative route of reliance on a formal document of anatomical gift, i.e. the donor card, has taken on greater importance as a mechanism for documenting an individual's intent with respect to organ and tissue donation.

The Wisconsin Anatomical Gift Act explicitly states that a document of anatomical gift executed by the donor while alive is irrevocable and takes precedence over the wishes of any other individual. Furthermore, it states that it is incumbent on the hospital to conduct a reasonable search for a document of gift or other information identifying an individual as a donor.

Ascertaining whether a donor card has been signed and gaining timely access to this legal document has presented a singular problem to organ recovery specialists. Knowledge of the patient's intent while competent and documentation of their wishes is invaluable in conversations with the patient's family. Frequently, however, the patient has executed this document without discussion and may not have ever verbally expressed his or her wishes. Unfortunately, the very circumstances surrounding the patient's life-threatening condition tend to work against the donor card ever being found, and if located, being incorporated in the patient's current medical record. Hence, an alternative mechanism for documenting intent and providing timely access to this information is desirable.

Objective

It is proposed that the State of Wisconsin, in collaboration with its local organ and tissue procurement and transplant organizations, establish a legally binding organ and tissue door registry to serve as the repository for documentation relating to an individual's intent to donate organs and tissues and to provide immediate access to this information to those individuals or organizations responsible for potential donor identification and referral.

Approach – Registrant

The intent of this proposal is to expand the capabilities of the Division of Motor Vehicles computer database so as to permit its secondary use as the Wisconsin Donor Registry. With the potential for online access to information stored within this system, the existence of the operator's license donor card and the considerable number of licensed drivers in this state make this a logical choice for the donor registry.

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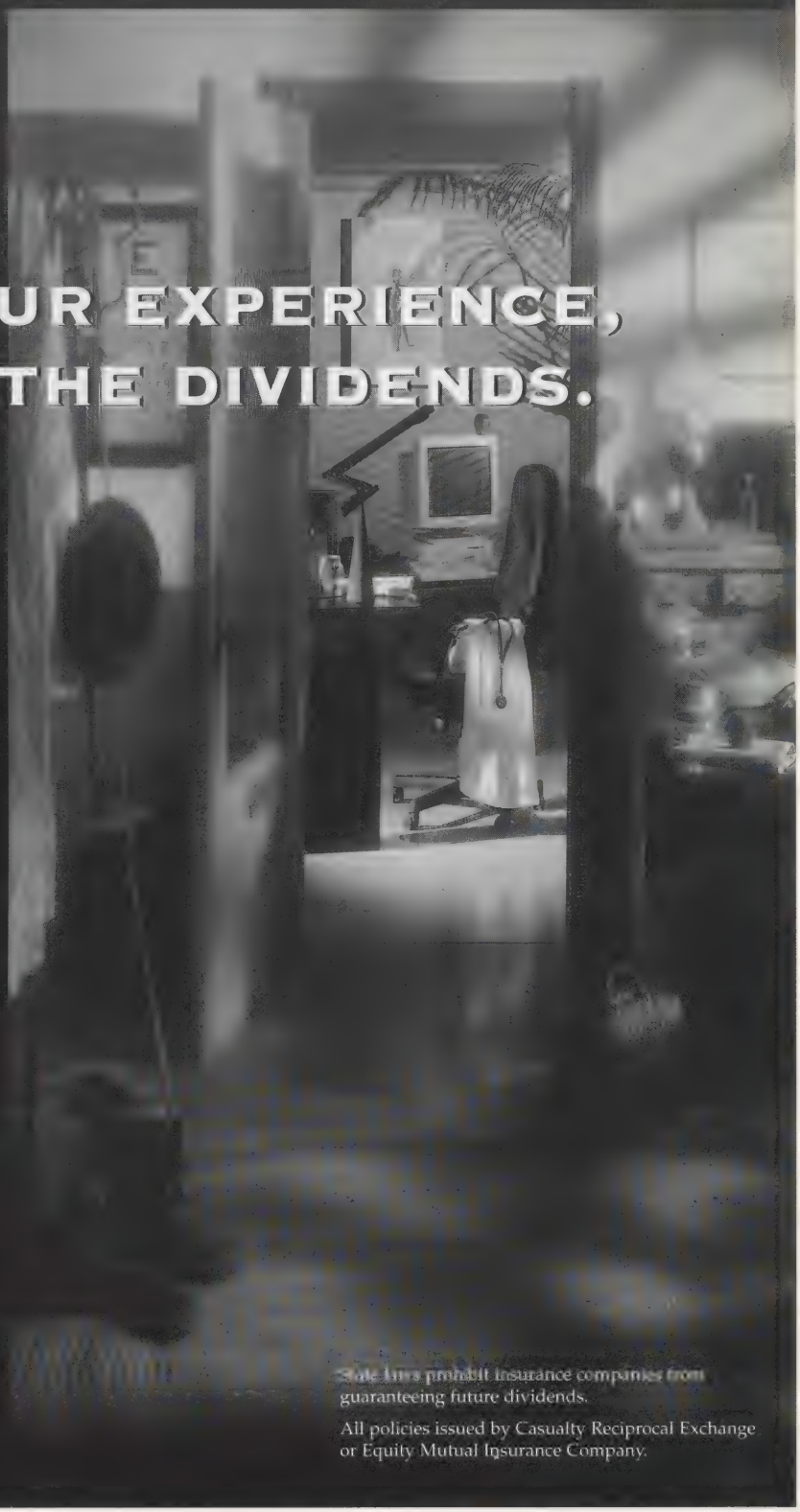

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Wisconsin Public Opinion Regarding Organ Donation and Allocation

The Wisconsin Donor Network commissioned a public opinion poll to survey Wisconsin residents about organ donation, organ allocation and factors influencing donation decision-making. Response was measured from 385 individuals of 18 years of age or older during the first week of April 1998. The research was administered by Market Insights and the data have a 95% confidence level.

Key Findings

1. Over 88% of Wisconsin residents are moderately to extremely willing to donate their organs upon their death. On a scale of 1 to 10, over 43% ranked their intent at 10, indicating that they are extremely willing to donate.
2. When a loved one has expressed wishes to be a donor prior to their death, over 93% of the respondents answered that they would be very willing to extremely willing to honor those wishes.
3. Fifty percent of Wisconsin residents indicated that they have taken the action step to be a donor, by signing a donor card or the back of their driver's license.
4. Over one quarter of the state's population (26.2%) is more likely to donate if the organ recipient lives in Wisconsin. This figure drops by half if the organ recipient lives outside of Wisconsin.
5. When potential in-state and out-of-state recipients are within days of death, the findings show 56% prefer that the organ go to the Wisconsin recipient versus 13% who prefer out-of-state placement. Therefore, over four times as many residents prefer Wisconsin donor organs go to Wisconsin patients.
6. When asked who should make decisions about who receives organs, 76% answered "organ donation and transplant professionals." The "federal government" was indicated by 1.3% of respondents.

Comment

The findings in points 1, 2 and 3 compare higher than the national public opinion figures, particularly with regard to signing donor cards. The Wisconsin Donor Network believes that the significant interest in organ donation among Wisconsin residents can be attributed to the widespread knowledge about the benefits and success of transplantation as well as the need for donation behavior if the public perceives inequity in the organ distribution system. We are concerned that a significant departure from current organ allocation methods may have a negative impact on the local transplant population.

Individuals electing to participate in the registry will be afforded the opportunity to indicate their intent by signing an anatomical gift statement on their Wisconsin Operator License Application at the time of initial application or renewal. Non-drivers will sign a similar statement on their application for a state identification card. Individuals choosing to either defer on registering or modifying the scope of their consent will be provided with a stamped, pre-addressed registration card to be returned at a later date.

Confirmation of registration will be provided to the registrant's address of record in the form of a carbon-impregnated envelope, which can be mailed back if incorrect or if changes are required.

Approach – Health Care Provider

It is envisaged that at or near the time of death of a patient in any health care facility or upon delivery of a deceased person to a medical examiner or coroner, the Registry will be accessed by a limited number of authorized users through direct query of the data base or by contacting a single state agency and requesting a registry search. Access to this information will be available on 24-hour bases and will be provided to the requestor in a suitable "hard copy" format. (A hard copy record of the registry document will be provided to the healthcare provider for inclusion in the patient's permanent medical record. Additional copies can be provided to the organ or tissue procurement teams. Registration of the intent to make an anatomical gift will be treated as a document of anatomical gift consistent with the Wisconsin Anatomical Gift Act and obviate the need for and take precedence over the consent or wishes of any other person.

Health care providers will access the registry by means of a single 800-number, staffed by procurement agency personnel on a 24-hour basis. Procurement personnel will initiate a search of the registry and base a "match" on a specified number of identification points. It is anticipated that within the duration of a five-minute telephone call, the healthcare provider will be provided with the following information:

1. Status of registry search
2. Exclusion for medical suitability

3. Initiation of referral sequence

4. Additional consultation as required

All calls will be logged for quality assurance purposes and written documentation will be provided to the healthcare provider, no less than annually, of the volume and disposition of cases referred. Documentation will serve to partially satisfy JCAHO, state or federal requirements relating to organ donor identification and referral.

Promotional Activities

A communications plan will be established to promote the program among the general public, individuals approaching license renewal and persons conducting business at DMV stations. Information regarding the registry and procedures for accessing the database will be provided to all hospitals and medical examiner/coroner offices in the state of Wisconsin. Organ procurement organizations in adjacent states will be given information regarding the registry and provided with a contact for access in the event a Wisconsin resident is hospitalized within their service area.

Key Support Requirements

Successful implementation of the registry is predicated on the following assumptions or factors:

1. All calls requesting a registry query will be placed to a single telephone number.
2. Procurement organization or hospital personnel should be provided with a single toll-free telephone number to call when accessing the registry.
3. Effective utilization of the registry should result in a reduction in the number of telephone calls placed by hospital personnel to access donor suitability.

Operator's license applicants are currently asked on the application to state their wishes regarding organ donation. Although for coding reasons non-responses cannot be differentiated from "no's", a recent audit of DMV records indicated that in 1997 28% of individuals indicated their intent to be recorded as a potential organ donor. A public opinion poll conducted on behalf of the Wisconsin Donor Network in April, 1998, indicated that 50% of Wisconsin residents have signed a donor card or the back of their driver's license. This positive response is significant, however, and from a hospital perspective, represents documentation of interest by potentially one-fourth to one-half of hospital admissions from this population.

Based on this experience, it appears the operator's license application may be the appropriate primary means of donor registration. Alternative mechanisms for donor registration will need to be identified so as to pick-up persons unwilling to register at the time of license renewal or those persons falling outside of this population of potential drivers.

In the development of a donor registry, several general system attributes must be addressed:

1. The system must permit easy, decentralized registration.

The infrastructure supporting the DMV license application process is ideally suited to support the donor registry. Organ donation related information is currently disseminated by the DMV and renewal applicants have already been offered the opportunity to express their intent. The number of DMV sites is limited and conducive to the presentation of a brief, highly focused information program.

Educational programs can be focused on eliciting two possible outcomes: 1) The applicant executes the anatomical gift document at the DMV facility and is registered in the system; or 2) The applicant defers on the decision and subsequently signs the donor statement at a later time. In the latter case, the individual will be provided with the means to formally register in the system.

2. Information contained in the donor registry must be accessible at all times and be highly reliable.

It has been demonstrated that access to the coded response to the questions of interest can be retrieved on an individual basis through an DMV computer terminal. A pilot study will be implemented by the Wisconsin Donor Network to determine the utility of this information given the pragmatics of an actual donor situation. It is anticipated that with timely access, this information can be available prior to discussion of organ donation with the patient's family.

To minimize potential errors, the donor registry should document participation only and not be utilized to document a refusal. A single affirmative response will reduce the likelihood that an individual's wishes are incorrectly coded. Control over access to information contained within the registry should be limited to organ recovery or other authorized personnel and be limited solely to registry information. Organ recovery personnel should have the ability to print a copy of the record for inclusion in the potential donor's medical record.

3. The intent indicated on the application must be a legally binding document of anatomical gift.

Language included on the license application must be consistent with that specified within the Anatomical Gift Act and require a separate signature. Statutory assurance must be provided regarding the health care professional's ability to rely on documentation provided through the donor registry as equivalent to the physical presence of a signed document.

4. Individuals must have the ability to modify the scope of their consent or withdraw from the system.

As a practical matter, the registry should be structured so as to permit individuals to modify the scope of their consent or entirely withdraw from the registry. Historically, the public has viewed donor registries with some district, a fear that has been capitalized on by several popular writers. It is essential that the registry be positioned such that the public is assured that their prerogatives are absolutely protected. This fact alone may dictate that the donor registry be subject to some degree of public oversight.

5. The registry design should include the potential to be interfaced with other registries, which evolve in the future.

In a mobile society, the obvious constraint to this registry is that it is limited to a single state; whereas, the organ donor card is truly universal throughout the United States. As the demand for transplantable organs and tissues grows, it is not unreasonable to anticipate a time when a national donor registry is proposed. At the

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Coronary Stenting for Coronary Artery Disease in a Cardiac Transplant Recipient

David K. Murdock, MD, Robert W. Murdock, and Danny Lundberg, MD

SUMMARY

Accelerated coronary artery disease in the transplanted heart remains the leading cause of death in heart transplant recipients. Traditional treatment modalities have generally yielded sub-optimal results. Coronary artery stents are used frequently in the non-transplanted heart to treat coronary artery disease. Only a few cases using this approach in the cardiac transplant recipient have been reported. This report details the use of this modality in a transplant recipient with significant two-vessel coronary artery disease 11 years after orthotopic cardiac transplantation.

INTRODUCTION

Accelerated coronary artery disease (CAD) with subsequent ischemic myocardial damage is the major complication limiting long-term survival in cardiac transplant recipients.[1] By four years post transplant, 45% of recipients demonstrate angiographically visible CAD.[2] This particular type of CAD may have features of typical atheromatous disease involving the large epicardial vessels. It may also be characterized by excessive intimal hyperplasia and diffuse obliterative CAD affecting the large and small coronary vessels.[3,4] Routine surveillance coronary angiography has become the method of choice to detect and follow this complication.[5]

Treatment of this disorder can be difficult. When myocardial damage is severe or the CAD is of the diffuse obliterative variety, re-transplantation becomes the treatment of choice.[6-7] In less severe circumstances, percutaneous coronary angioplasty (PTCA) has been used.[8-10] However results have been mixed. Restenosis is common despite successful initial results and may occur more frequently than in the non-transplant patients undergoing the procedure.[10] Coronary artery stents have been shown to decrease acute and chronic ischemia and angiographic restenosis in non-transplant patients undergoing PTCA[11,12] and might theoretically prove useful in cardiac transplant recipients as well. Thus far, only a few isolated case reports are available concerning the use of coronary artery stents in cardiac transplant recipients.[13-15] We present a case report in which the right coronary artery (RCA) and the left anterior descending coronary artery (LAD) were successfully stented in a cardiac transplant recipient.

Authors are with Cardiovascular Associates of Northern Wisconsin, Wausau and The Rhinelander Medical Center, Rhinelander. Supported in part by The CARE Foundation, Wausau and Wausau Hospital. Reprint requests to David K. Murdock, MD, 520 N. 28th Ave., Wausau, WI 54401; (715) 842-3218 or Fax (715) 843-7117.

CASE REPORT

The patient is a 56-year-old male who suffered his first myocardial infarction at the age of 29 years. He was treated medically for several years until refractory angina occurred. At the age of 42 years he underwent coronary artery bypass grafting for diffuse three vessel CAD. Poor target vessels were present and operative results proved less than optimal. Severe recurrent angina, congestive heart failure and malignant arrhythmias ensued. He underwent orthotopic cardiac transplantation on 9/1/85. The patient has been maintained on a two drug immuno-suppressive protocol of cyclosporin and azathioprine. The early post transplant course was complicated by one episode of acute rejection treated with high dose pulse steroids. The late post transplant course has been notable for hypercholestrolemia, obesity, excessive alcohol usage, hypertension, and the resumption of tobacco products. Moderate renal insufficiency believed to be secondary to cyclosporin developed.

Six years post transplant serial annual coronary angiograms revealed the presence of non-obstructive narrowing in some of the smaller coronary vessels. This progressed slowly and remained in the non-obstructive range through the 11th post transplant year. Left ventricular function remained normal. Large vessel CAD was first noted four years post transplant. By the 11th post transplant year, the large vessel CAD had progressed to the point that obstructive disease was noted in the RCA and the LAD (Figure 1). Note the left anterior oblique view of the RCA demonstrates significant mid-vessel CAD with atherosclerotic debris

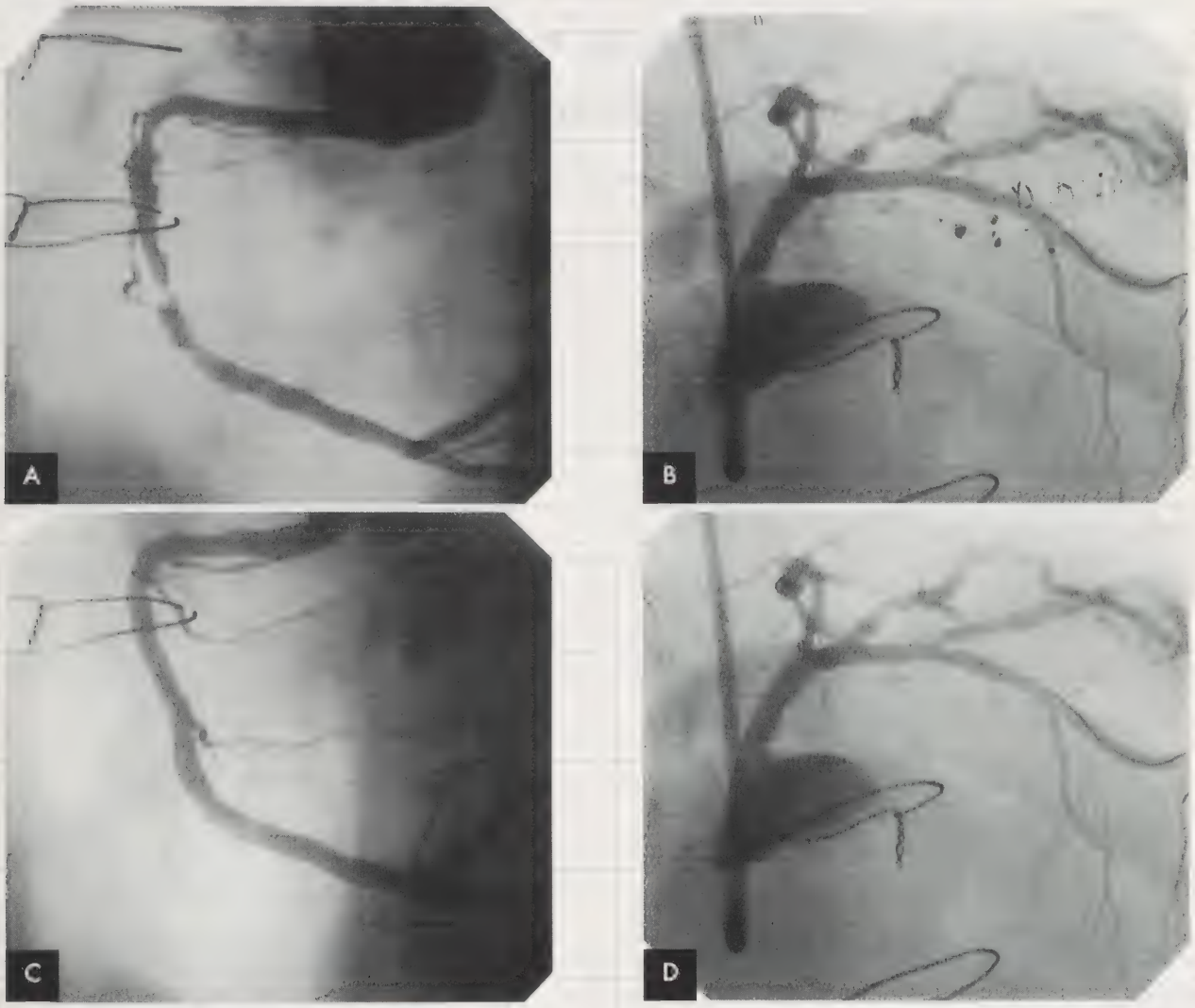

Figure 1. Coronary artery disease in a cardiac allograft eleven years post transplant treated with coronary artery stenting. Baseline angiograms of the RCA (A) and LAD (B) demonstrate significant obstructive disease. Coronary artery stenting was used successfully to treat the disease (C & D). See text for details.

projecting into the coronary artery lumen (Figure 1A). Note the right anterior cranial projection of the LAD demonstrates significant obstructive CAD before and immediately after the take off of a diagonal coronary artery (note arrow in Figure 1B).

The RCA was treated first by deploying 3, 3.5mm Palmaz-Schatz stents (Johnson & Johnson Interventional systems, Warren, NJ). This effectively covered the diseased area and abolished the luminal narrowing. Three-and-one-half-months later coronary angiograms were repeated showing a widely patent RCA (Figure 1C). Thus in the same setting, the LAD was stented with a single 3.5x20 mm GR II stent (Cook Inc, Bloomington, IN) positioned across the diagonal branch (Figure 1D). The anticoagulation regimen included 325-mg aspirin and at least 30 days of ticlidopine 250-mg twice a day. Each angiographic procedure was associated with transient worsening of his renal insufficiency. The patient is now 8-1/2 months post RCA stenting and 5-months post LAD stenting without evidence of ischemia by stress echocardiography. His serum creatinine level has returned to baseline (2.5 mg/dl).

DISCUSSION

The pathological features characterizing transplant CAD are variable and time dependent. Early after transplant diffuse intimal proliferation occurs and features of vasculitis predominate.[3,4] Subsequently, athromas form as intracellular and extra-cellular lipid deposition occurs in the intimal and medical walls. Although the exact mechanism of transplant CAD is unknown, immunologic mechanisms appear important. Endothelial antigens elicit both humoral and cellular mediated immune responses. Damage to endothelium and attempts to repair this damage appears to initiate a cascade of events

leading to inflammation, vasoconstruction, thrombosis, vascular smooth muscle growth, and lipid deposition.[16] Small vessel occlusive disease tends to produce micro-infarction and ischemia leading to a gradual and progressive decline in cardiac function. The development of coronary occlusion in the larger epi-cardial vessels produces large zones of ischemia and consequently sudden changes in cardiac function. Since the transplanted heart is largely de-nervated, anginal symptoms are unusual in the transplant recipient. Instead, if symptoms occur, they are more commonly due to end organ damage and are related to congestive heart failure and arrhythmias.

Our patient had evidence of both large and small vessel CAD. However, his small vessel CAD had not progressed to obstructive levels and consequently his ejection fraction has remained normal through eleven post-transplant years. Instead the most striking feature in our patient was the progressive development of large vessel CAD, particularly between the 10th and 11th post transplant years (Figure 1).

Treatment of transplant CAD is particularly challenging. Short-term successful outcomes have been achieved with PTCA,[8-10] however high restenosis rate has been noted.[10] This fact coupled with the rapid progression of disease elsewhere has limited the long-term effectiveness of PTCA. In a recent multi-center trial only 61% of patients were alive a mean of 19 months post PTCA.[10]

Noting the limitations of standard PTCA in the transplant recipient, we elected to insert stents after performing PTCA. Because of uncertainty as to how a stent would perform in the allograft coronary artery, we elected to stage the procedure. The CAD in the RCA appeared more threatening and consequently was treated first. Only after demonstrating the absence of restenosis 3-1/2 months later (Figure aC) did we proceed to treat the LAD in a similar manner (Figure 1D).

In summary, our case confirms the results noted by others that coronary artery stenting is feasible in the transplant recipient. Whether this approach will prove to be superior to standard PTCA remains to be determined.

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Early Experience with Laparoscopic Splenectomy

Michael J. Demeure, MD, Constantinos T. Frantzides, MD, PhD

ABSTRACT

Background: Laparoscopic splenectomy is an example of the recent continued advancement in laparoscopic surgery as techniques are adapted for procedures previously done only via a laparotomy.

Methods: We analyzed our initial experience with laparoscopic splenectomy for details of the operative procedure and the clinical outcome including length of stay and complication rates.

Results: Two surgeons performed 11 laparoscopic splenectomies for cancer or hematologic disorders. In two instances (18%) conversion to open splenectomy was necessary due to bleeding at the splenic hilum. There were no mortalities. Two patients developed pancreatic fluid collections that were successfully drained percutaneously. The seven patients who had an uncomplicated course resumed eating a regular diet in 2.0 $\pm$ 0.6 days ($\mu \pm$ SD) and had a hospital stay of 2.7 $\pm$ 1.1 days. Hospital stay was significantly longer for the patients who had complications 9.7 $\pm$ 7.2 days ($p<0.05$) and for the 11 patients undergoing an elective uncomplicated open splenectomy during the same time period, 6.5 $\pm$ 2.0 days ($p<0.05$). For the 9 patients who had a completed laparoscopic splenectomy, the mean operative blood loss was 263.9 $\pm$ 241.4 cc. The mean operative time was 293.3 $\pm$ 91.4 minutes. The spleens removed laparoscopically weighed an average of 390 grams (range 17 to 1584 grams).

Conclusions: Laparoscopic splenectomy can be performed safely and is associated with a rapid resumption of oral alimentation and shortened hospital stay compared to open splenectomy. Complications experienced in our early experience included conversion to open splenectomy and fluid collections from pancreatic leakage.

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INTRODUCTION

The laparoscopic surgery era started with the widespread adoption of laparoscopic cholecystectomy as the procedure of choice for most patients with symptomatic gallstones. As instrumentation improves and surgeons gain experience and skill with minimally invasive surgical techniques, an increasing number of procedures are being performed via laparoscopy. Laparoscopic procedures commonly performed at our institution include cholecystectomy, herniorraphy, gastric fundoplication, esophagomyotomy, colectomy, spinal exposure, cancer staging and adrenalectomy. The technique of laparoscopic splenectomy was first reported in 1992.[1,2] Recent reports of laparoscopic splenectomy done for hematologic diseases suggest the procedure is safe and patients benefit by shorter hospital stays and quicker resumption of normal activities.[3,4] We report our initial experience with laparoscopic splenectomy.

METHODS

We conducted a retrospective analysis of the records of our initial 11 patients undergoing laparoscopic splenectomy. We compared these records to those of patients undergoing an open splenectomy during the same time period at our institution, between 1995-1997. Splenectomies were classified as laparoscopic splenectomy (LS), open splenectomy (OS), or converted from laparoscopic to open splenectomy (CS). All laparoscopic splenectomies and converted splenectomies were performed by the authors, whereas, the open splenectomies were done by various other surgeons at the Medical College of Wisconsin. The attending surgeons chose the operative approach. Preoperative embolization of the splenic artery was not employed.

Our technique for laparoscopic splenectomy is described briefly. The patients are placed in a low lithotomy position with a roll to elevate the left side of the trunk. The abdomen is entered using an Optiview™ trocar (Ethicon, Cincinnati, OH) and the remaining trocars placed under direct visualization (figure 1). The abdomen is carefully examined for accessory spleens. The splenic flexure of the colon is mobilized using the hook cautery, cautery scissors

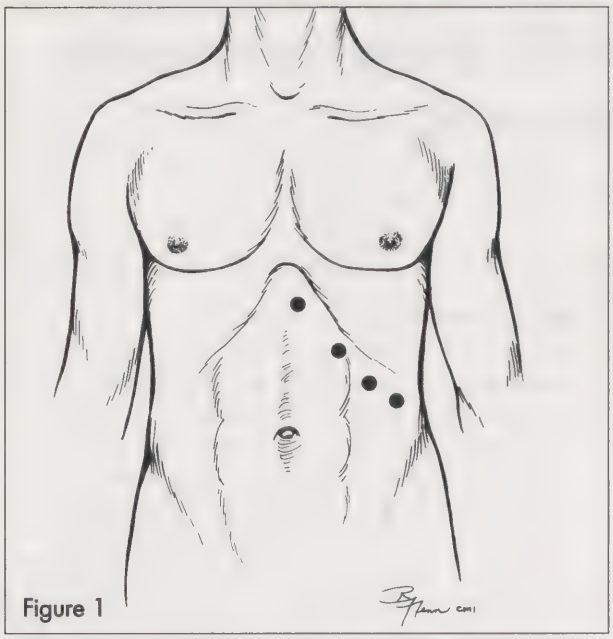

Figure 1

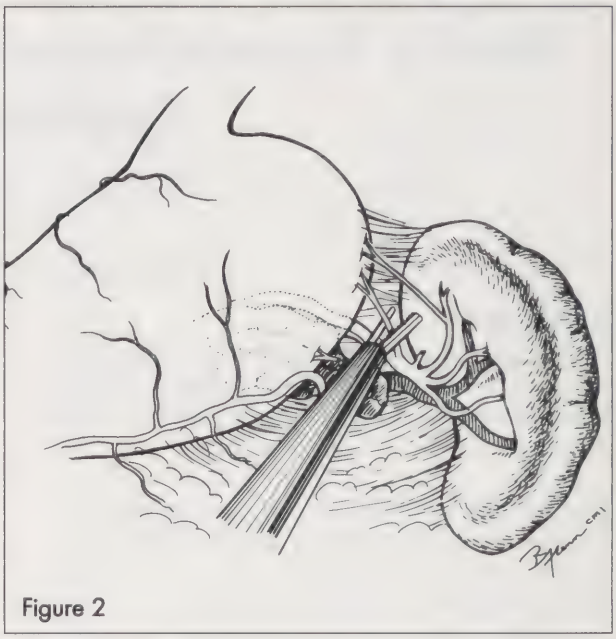

Figure 2

or harmonic scalpel. The short gastric vessels are divided using the harmonic scalpel (figure 2). The leinophrenic ligaments are sharply divided with the cautery scissors. The splenic artery is ligated with a proximal tie and then divided between metal clips (figure 3), or divided with an endovascular stapler. The splenic vein is divided with an articulated endovascular stapler (figure 4). Once freed, the spleen is placed in to a specimen retrieval bag and removed via an enlarged umbilical incision or a small incision created by joining two left-upper quadrant port sites. To allow removal, the spleen is fractured with a ring forceps, while in the bag, to provide large tissue fragments for pathologic examination.

Data chosen for analysis included the patients' age and gender, indication for operation, operative time, estimated blood loss, weight of the spleen, number of postoperative days until resumption of liquid and solid diets, length of hospital stay, morbidity, and mortality. In some cases, patients were not discharged but transferred to the oncology service for chemotherapy. In these cases, the discharge day was regarded as the day of transfer if the patient was eating normally and would have been discharged to home if not for the necessity for additional treatments.

RESULTS

Our patient series consisted of 7 women and 4 men (table). Their average age was 37.7 years (range 19-63). The indications for splenectomy were hypersplenism due to hematologic disease (6), idiopathic thromobocytopenic purpura (ITP)(4) and isolated metastatic adrenal cortical cancer (1). Two surgeons attempted 11 LC, completing 9 and converting 2 (18%) to open laparotomy due to venous bleeding at the splenic hilum. There were no mortalities and no apparent anesthetic complications. There were two complications among the 9 LC patients. Both patients had pancreatic fluid collections that were drained percutaneously and resolved. Of the remaining 7 uncomplicated LC patients, the mean hospital stay was 2.7 ± 1.1 days compared to 6.5 ± 2.0 days for the 11 patients undergoing uncomplicated open splenectomy ($p<0.05$). The two patients who had pancreatic fluid collections had hospital stays of 6 and 18 days. One patient who required conversion to open laparotomy for bleeding had postoperative cardiac ischemia prompting a cardiac evaluation and subsequent coronary artery bypass. The patient recovered well and was discharged on the ninth hospital day. The second CS patient was discharged on the fifth postoperative day. For the 9 patients who had a completed laparoscopic splenectomy, the mean operative blood loss was 263.9 ± 241.4 cc. The mean operative time was 293.3 ± 91.4 minutes. The spleens removed laparoscopically weighed an average of 390 grams (range 17 to 1584 grams). Although not explicitly stated in all records, reasons for electing an open splenectomy included large size of the spleen, a history of prior operation, or surgeon preference. Prior operation is not necessarily a contraindication to laparoscopic splenectomy, because two patients who had successful LS had previous upper abdominal operations. One patient had undergone a cholecystectomy via a midline

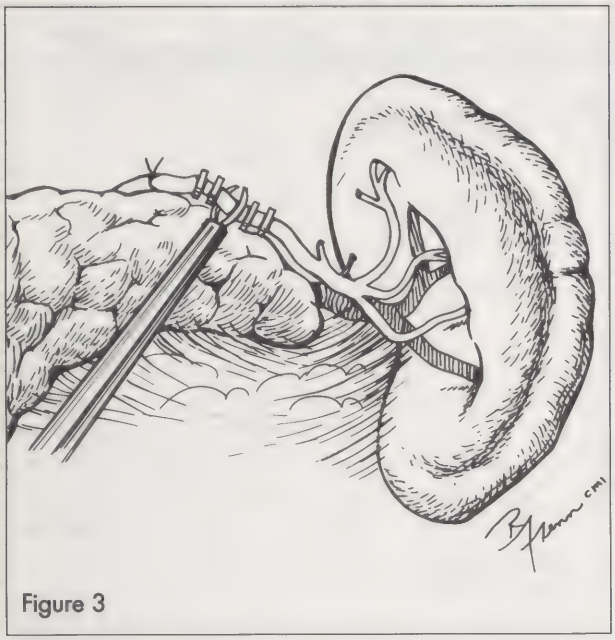

Figure 3

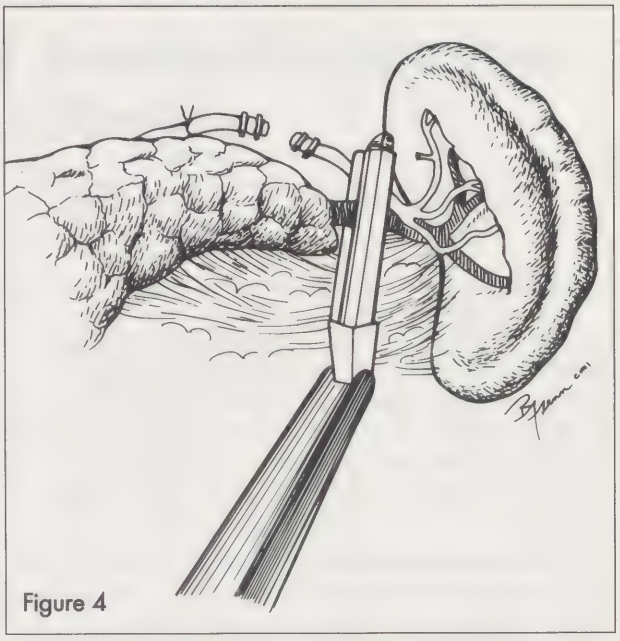

Figure 4

incision. The other patient had a previous open cholecystectomy and a right nephrectomy.

DISCUSSION

Since the advent of laparoscopic cholecystectomy, many procedures have been adapted so as to enable them to be performed via minimally invasive techniques. The advantages of laparoscopic methods touted over their open counterparts include a more rapid recovery including earlier hospital discharge, quicker resumption of normal activities and less postoperative pain as well as cosmetic advantages. Another potential advantage for patients with hematologic malignancy is the option to start chemotherapy sooner after laparoscopic splenectomy than one would usually wait after a laparotomy. Patients are generally eager to pursue the minimally invasive options so the onus remains on the surgeon to examine critical new innovations in surgical techniques. The spleen, particularly in the setting of hematologic disorders such as ITP, would seem ideally suited for laparoscopic removal because it is a solid organ with a vascular pedicle and is not cancerous. Advances in instrumentation including the harmonic scalpel and articulated vascular staplers have facilitated division of the short gastric vessels and splenic vessels, respectively.

In light of emerging favorable reports, we analyzed our initial experience with laparoscopic splenectomy. In our preliminary series of 11 patients, laparoscopic splenectomy was accomplished in nine patients with generally excellent results. The procedure enabled a more rapid recovery in that patients resumed eating sooner and had shorter hospital stays than did patients who underwent open splenectomy performed during the same time period at our institution. These results are nearly identical to those of larger series.[5] Nevertheless, these results are tempered by the pancreatic fluid leaks that occurred in two patients. Injury to the pancreas is a known complication of open splenectomy, occurring in 1-3%.[6] When a concern exists at the termination of the procedure whether open or laparoscopic, a closed suction drain should be used as it does not increase the risk of subphrenic infection.[7] The reason for conversion to open in both cases was bleeding in the region of the splenic hilum. Bleeding was controlled by tamponade with a balloon tipped Softwand™ retractor (Circon Corporation, Santa Barbara, CA) until a laparotomy was made. Our conversion rate of 18% is similar to that reported elsewhere in the literature.[5,8,9] Operative duration was long but likely reflects our relative inexperience with laparoscopic splenectomy and as it has for other laparoscopic procedures, the operative time is likely to shorten with increased experience. Others have done this operation in the lateral decubitus position citing better exposure to the hilum of the spleen.

Some reports have suggested laparoscopic splenectomy should be the procedure of choice to remove the spleen.[4,10] The standard is set with open splenectomy which when done primary hypersplenism was associated with a morbidity rate of 10% and mortality rate of 2% in one large series.[11] Other series however cite morbidity rates of 20%-61% and mortality rates of 6%-13% for all splenectomies.[11,12] It appears the reasons for electing to perform open splenectomy were the presence of a

Patient	Age (yr)	Gender	Indication	Op Time (minutes)	Estimated Blood Loss (cc)	Weight of Spleen (grams)	Hospital Stay(days)
1	63	M	Hypersplenism, CLL	410	100	642	18
2	50	M	Hypersplenism, myelodysplasic syndrome	365	500	1584	6
3	34	F	Hypersplenism, SLE	410	100	138	18
4	19	F	ITP	250	500	208	2
5	26	F	ITP	280	50	148	3
6	43	F	Isolated adrenocortical cancer metastasis	130	200	17	4
7	19	F	ITP	275	25	128	3
8	32	F	CML	220	100	400	2
9	32	M	ITP	300	200	244	1

ITP = idiopathic thrombocytopic purpura CML = chronic myelogenous leukemia
SLE = systemic lupus erythematosus CLL = chronic lymphocytic leukemia

large spleen or the surgeon's lack of familiarity with the laparoscopic approach. This latter rationale may soon be insufficient as its is now for laparoscopic cholecystectomy. In the current era, it is wrong not to offer a patient with symptomatic cholelithiasis the option of a laparoscopic cholecystectomy solely because the surgeon is not familiar with the technique. On the other hand, a large spleen may preclude laparoscopic removal by obscuring exposure to the short gastric vessels or hilum. To this end, ITP seems the ideal setting for laparoscopic splenectomy as the spleens are generally no more than minimally enlarged. Based on our experience and review of the literature, we conclude laparoscopic splenectomy is a valid procedure that can be performed safely. As experience with laparoscopic splenectomy develops, it is likely to become the standard approach for splenectomy for many patients.

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Implantable Atrial Defibrillator for Atrial Fibrillation

Jasbir Sra, MD; Mohammad R. Jazayeri, MD; Anwer Dhala, MD; Zalmen Blanck, MD; Sanjay Deshpande, MD; Masood Akhtar, MD

ABSTRACT

Atrial fibrillation is a common problem. Pharmacological and nonpharmacological approaches have limited therapeutic efficacy in many patients. Low energy transvenous atrial defibrillation using catheters positioned inside the right atrium and cornonary sinus has been shown to be efficacious in converting atrial fibrillation to sinus rhythm. We report the successful use of this technology in an implantable form in a patient with symptomatic atrial fibrillation. The patient could be kept in sinus rhythm using an implanted atrial defibrillator.

INTRODUCTION

Atrial fibrillation is an extremely common and troublesome arrhythmia as shown by a number of epidemiological studies.[1,2] It is the most common reason for arrhythmia-related hospital admissions in this country and it is also one of the most important treatable causes ot stroke.[2,3] In many patients atrial fibrillation can cause disabling symptoms due to rapid and irregular ventricular response and loss of atrial contribution to cardiac function. Treatment with antiarrhythmic medications is successful in a number of patients. In others, however, pharmacological therapy has limited efficacy and its use may be limited due to an adverse side effect profile which includes ventricular proarrhythmia.[4-7] Nonpharmacologic approaches such as His bundle ablation and implantation of a permanent pacemaker can relieve symptoms of rapid ventricular rate but do not restore atrial function or reduce the risk of thromboembolism. Unlike other forms of supraventricular tachycardia, catheter ablation for cure of atrial fibrillation has limitations and is not a readily acceptable procedure at this time.[8] Surgery for atrial fibrillation includes the corridor and MAZE procedures.[9, 10] MAZE is based upon the creation of a maze in which procedure there is an entrance point (the sinus node), one exit site (the AV node), one conduction route between entrance and exit, and several blind alleys along the route. Although only a limited number of patients have undergone these procedures, the results are favorable but are associated with some mortality. The surgery itself is a major procedure and longterm results of morbidity in a large series are not yet available. Treatment of recurrent attacks of atrial fibrillation unresponsive to pharmacological therapy thus represent a significant therapeutic challenge in modern cardiology. Recent research has focused on the development of an implantable form of atrial defibrillator which could restore normal sinus rhythm using low energy shocks. We now report the successful use of an automatic implantable atrial defibrillator in a patient with symptomatic atrial fibrillation refractory to treatment with standard antiarrhythmic medications.

CASE REPORT

A 59-year-old man with history of symptomatic chronic persistent atrial fibrillation of six months duration was referred for evaluation and further management. The patient had a history of hypertension which was well controlled with atenolol 50-mgm once a day. Physical examination, 12-lead electrocardiogram and two dimensional echocardiography did not reveal evidence of any other underlying structural heart disease. During atrial fibrillation the patient complained of palpitations, lightheadedness, dyspnea and fatigue. The patient had reverted back to atrial fibrillation within two weeks following successful external cardioversion on procainamide. Subsequently, the patient was started on sotalol 160 mgm twice daily and atrial defibrillation performed. The patient reverted back to atrial fibrillation after staying in sinus rhythm for about three months. Therefore, implantation of an automatic atrial defibrillator was considered. Approval for implantation was obtained from the institutional review board of St. Luke's Medical Center in Milwaukee and the U.S. Food and Drug Administration. Written informed consent for the procedure was given by the patient.

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Implantation and atrial fibrillation-defibrillation testing were performed using intravenous sedation. The left subclavian vein was cannulated and three 7F transvenous leads were positioned inside the right atrium, the coronary sinus, and the right ventricular apex (Fig. 1). The right ventricular lead was a polyurethane insulated transvenous endocardial ventricular bipolar lead. The right atrial lead (Perimeter™ Model No. 7205) was an active fixation screw-in lead with a defibrillator coil length of 6cm and an electrode surface area of 5.2cm^2. The coronary sinus lead (Perimeter™ Model No. 7903) was a passive fixation lead with a defibrillation coil length of 6cm and an electrode surface area of 4.6cm^2. Testing with external defibrillation system analyzer was used to identify adequate lead position by converting atrial fibrillation to sinus rhythm on three successive attempts at 260, 240 and 220 volts. Thereafter, all three leads were connected to the atrial defibrillation (METRIX™ 3020 Automatic Atrial Defibrillator, InControl, Inc.). The atrial defibrillator was placed in a pocket created in the left infraclavicular region (Fig. 1). The METRIX atrial defibrillator weighs 79-grams and is designed to detect atrial fibrillation and deliver R-wave synchronous shocks following a minimum preceding R-R (interventricular) interval of 500-milliseconds. The maximum defibrillation voltage available is 300-volts (about 6 joules). The device also can be used to induce atrial fibrillation by delivering low energy R-wave synchronous shocks during sinus rhythm.

Atrial fibrillation was then induced by delivering a 50-volt R-wave synchronous shock. Ability of implanted atrial defibrillator to appropriately detect and deliver shock synchronous to the R-wave following a minimum preceding R-R interval of 500-milliseconds was tested. Following 48 hours of hospitalization and prior to being discharged the patient was again tested under light sedation with intravenous midazolam. Two successive shocks at 260-volts were used during this part of the testing and these successfully converted atrial fibrillation to normal sinus rhythm. The patient complained of some discomfort during shock delivery but said that the shocks were tolerable and did not ask for heavy sedation. No complications were encountered and transesophageal echocardiography following the implant procedure and two-dimensional echocardiography at the time of discharge from the hospital showed normal atrial contraction and no evidence of thrombus formation.

During a follow-up of 14 months the patient has had atrial fibrillation recurrence on an average of every two to four weeks. All of these episodes have been successfully converted to sinus rhythm on an outpatient basis. The patient does not take any sedation and feels the shocks are tolerable. He has also been trained to activate his device using a magnet so that he can do atrial defibrillation on an outpatient basis.

DISCUSSION

We have previously reported the feasibility of atrial fibrillation detection and delivery of R-wave synchronous shocks using temporary catheters positioned in the right atrium, coronary sinus and right ventricle.[11,12] This is one of the first patients, however, to receive an implantable atrial defibrillator under the investigational device exemption approved by the U.S. Food and Drug Administration.

The experience gained from intracardiac cardioverter defibrillators for the treatment of ventricular arrhythmias has led to interest in the development of an implantable form of atrial defibrillator which could detect atrial fibrillation in an appropriate fashion and deliver properly timed shocks which would minimize the risk of ventricular proarrhythmia. As a right atrial-coronary sinus leads gives the best defibrillation vector to avoid use of multiple leads, the same leads are also used to perform atrial sensing for detection of atrial fibrillation.[11]

During the initial phase of the trial, episodes of atrial fibrillation were being terminated using the atrial defibrillator under physician observation. However, as the safety and efficacy of this form of therapy has been demonstrated in a large number of patients, manual activation of the device using an external magnet by the patients has become available. As atrial fibrillation is not immediately lifethreatening this should enable patients to control the timing of their therapy and to use analgesics if necessary to decrease any discomfort from low energy shock delivery. Although several issues such as efficacy, safety, patient tolerability and type of patients who may benefit from this form of therapy still need to be addressed, the preliminary results from this report suggest that this form of therapy is technically feasible.

This is a new procedure and, therefore, many questions are, as yet, unanswered. Such issues as long-term cost of implanting and maintaining such a device, potential savings in hospital costs for patients with recurrent AF resistant to medication, the potential of obviating anticoagulation, repeated hospitalizations or emergency room visits, etc., will have to await longterm studies.

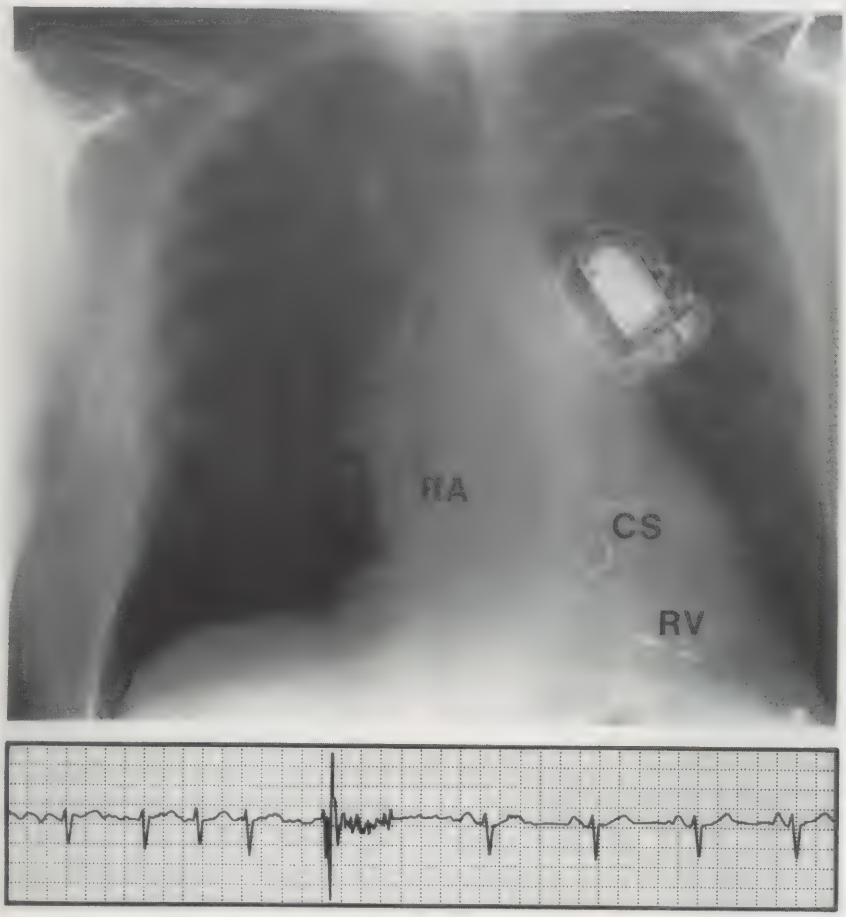

Figure 1. Implanted Atrial Defibrillator and Transvenous Lead System. Lead locations in the right ventricle (RV), right atrium (RA) and coronary sinus (CS) are shown. The atrial defibrillator is implanted in the left infraclavicular region. (Top Panel) Atrial fibrillation is detected using two sensing channels, one from the vector formed by the bipolar right ventricular (RV) lead (RV vector), and the second from the vector formed by the right atrial (RA) and coronary sinus (CS) leads (RA-CS vector). Synchronization process entails using vectors formed by the RVbipolar lead (RV vector) and from the tip electrode of the RV lead and the CS lead (RV-CS vector). Upon successful detection of atrial fibrillation and synchronization process defibrillation pulses are delivered across the RA-CS leads as shown in the bottom Panel. During a spontaneous atrial fibrillation episode an R-wave shock at 260 volts converts atrial fibrillation to sinus rhythm. The R-R interval preceding the shock is well above the minimum programmed value of 500-milliseconds.

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WISCONSIN MEDICAL JOURNAL

Shotgun Wound Management: A Comparison of Slug and Pellet Injuries

Clark A. Davis, MD, Thomas H. Cogbill, MD, and Pamela J. Lambert, RN

ABSTRACT

Shotgun slug injuries have received little attention while shotgun pellet wounds have been well described. Twenty-two shotgun pellet and 13 shotgun slug injuries treated over a 14-year period were retrospectively reviewed. Extremity and thoracic wounds were most frequent in both groups. The incidence of vascular and nerve injuries was similar for slug and pellet wounds. Angiography was more often used to evaluate pellet wounds for vascular disruption. The rate of wound infection was 38% for slug wounds versus 32% for pellet injuries. Tissue grafting was more frequently necessary for reconstruction after pellet injury. Long-term disability was documented in 15% of patients with pellet wounds and 23% with slug wounds. Despite similarities in wound location and outcomes, the ballistic differences between shotgun slugs and pellets resulted in significant differences in wounding characteristics and extent of injury which have important ramifications in management.

BACKGROUND

Gunshot injuries from our institution have been previously reported.[1] Over 10 years, 122 gunshot injuries occurred with 25 (21%) resulting from shotguns, 48 (39%) from rifles and 24 (20%) from handguns. Shotgun ballistics differ from that of handgun and rifle injury which affects management strategy.

Shotguns inflict relatively low velocity but high energy wounds. Shotgun shells are equipped with a single slug or multiple pellets of a variable size. Shotgun slugs are cylindrical in shape and measure up to 3 cm in length. Slugs are most frequently used for hunting large game at close range in populated regions. Pellet velocities from a 12-gauge shotgun approximate 1300-ft/sec with 2145-ft-lb energy at point blank range.[2] Slug velocity from the same gun is approximately 1600-ft/sec, imparting 1810-ft-lb energy at 75-ft.[3] Although shotgun pellet injuries have been thoroughly described, injuries from shotgun slugs have received little attention.

We undertook a comparative study of shotgun slug and pellet wounds treated at a single Wisconsin institution to highlight differences in injury types, management, and complications.

MATERIALS AND METHODS

A retrospective review of all patients with shotgun wounds admitted to Gundersen Lutheran Medical Center in La Crosse, Wisconsin, from 1981 to 1994 was conducted. Inpatient hospital records and outpatient clinic notes related to the shotgun injury were reviewed. The most recent clinic notes were used to determine outcomes. Gundersen Lutheran is a 400-bed, level-II referral trauma center that serves a population of 516,000 in 19 counties of southwestern Wisconsin, southeastern Minnesota, and northeastern Iowa. The hospital is staffed by 225 full-time physician specialists. More than 28,000 patients, including 9,900 with traumatic injuries, are treated annually in the Emergency Department. Patients from counties outside of La Crosse are often initially evaluated, resuscitated, and stabilized at local community hospitals before transfer to our institution. Statistical evaluation was performed with chi-square analysis; level of confidence was defined as $p < 0.05$.

RESULTS

Thirty-five patients with shotgun wounds were admitted during the 14-year study period. There were 33 males; ages ranged from 11 to 80 years (mean,

Table 1. Sherman[11] Levels of Shotgun Pellet Wound Injury

Level I =	Penetrates only skin and subcutaneous tissue; Target Distance > 12 m
Level II =	Penetrates deep fascia; Target Distance = 5-12 m
Level III =	Massive tissue destruction; Target Distance < 5 m

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Table 2. Anatomic Location of 13 Slug and 22 Pellet Shotgun Injuries

	Slug	Pellet	Totals
Head	2	5	7
Eye	0	2	2
Facial	0	4	4
Chest	5	7	12
Abdomen	1	2	3
Upper Extremity	3	15	18
Hand	0	4	4
Lower Extremity	6	6	12
Foot	4	1	5

Table 3. Procedure Types Listed by Anatomic Location in Slug and Pellet Victims

Procedure		Slug	Pellet
HEAD	# PATIENTS	2	3
Teeth Extraction		0	2
Ophthalmology		0	3
Plastics		0	8
Debridement		2	5
Vascular Exploration/Repair		0	1
TOTAL PROCEDURE/PATIENT		1	6.3
CHEST	# PATIENTS	2	1
Chest Tube		3	1
Debridement		2	0
TOTAL PROCEDURE/PATIENT		2.5	1
ABDOMEN	# PATIENTS	1	0
Laparotomy		1	0
Debridement		1	0
Plastics		0	0
TOTAL PROCEDURE/PATIENT		2	0
EXTREMITY	# PATIENTS	8	13
Orthopedics		10	18
Debridement		19	22
Plastics		3	22
Nerve Graft		1	0
Vascular Repair/Ligation		1	1
TOTAL PROCEDURE/PATIENT		4.3	4.9
TOTAL PROCEDURES/PATIENT		3.3	4.9

Plastics = grafting, scar revision, delayed primary closure
Ortho = splinting, ORIF

Table 4. Disability Rates

	Pellet	Slug
Mild	12	6
Moderate	2	2
Severe	1	1
	15 (68%)	9 (69%)

p = 0.769

31 years). Injury mechanisms were hunting mishaps in 23 (66%) patients, assaults in seven (20%), and suicide attempts in five (14%). Thirteen patients sustained slug injuries while 22 had pellet wounds. Pellet wounds were classified by Sherman level (Table 1). There were four Type I, six Type II, and 12 Type III pellet wounds.

Anatomic locations of injury are shown in Table 2. Extremity and chest wounds were common in both groups. Abdominal injuries were rare. Vascular trauma occurred in 2 (15%) slug wounds versus 4 (18%) pellet injuries. Angiography was performed in four patients. Angiograms were normal in one patient with a slug injury and one with pellet wounds. Arterial disruption was documented in two patients with pellet wounds. In one of these patients, pellet embolization from the carotid artery to the middle cerebral artery was also demonstrated. Peripheral nerve injuries were noted in 5 (38%) slug wounds versus 6 (27%) pellet injuries.

Procedures performed are listed in Table 3. Patients with slug injuries required an average of 3.3 procedures while those with pellet wounds underwent an average of 4.9 procedures. This difference was not significant. Injuries to the head and neck occurred in three patients who had sustained pellet wounds. One of these patients had an isolated eye injury. The other two patients with close range wounds required multiple tooth extractions, five debridements, and eight plastic surgical procedures to achieve wound closure. Two patients sustained slug injuries to the head and neck; each required only minimal debridement. Extremity injuries occurred in 8 slug and 13 pellet patients. The majority of extremity wounds in both groups resulted in multiple debridement procedures to remove damaged tissues, wadding, and bullet fragments. However, tissue grafting was necessary in only 2 (15%) patients with slug wounds to the extremities versus 9 (41%) patients with pellet injuries ($p = 0.2$). Chest injuries occurred in 2 patients with slug wounds; each required tube thoracostomy and local wound debridement alone. The single patient with pellet wounds to the chest underwent tube thoracostomy. The only abdominal injury occurred in an assault victim with a slug wound. This patient required laparotomy for small bowel resection.

Wound infections occurred after 5 (38%) slug wounds versus 7 (32%) pellet injuries. All wound infections were minor; none led to sepsis, tissue graft necrosis, or limb loss. All patients received intravenous antibiotics while in the hospital.

Mortality in this series was nil. Mild permanent disability was documented in 12 (55 %) patients

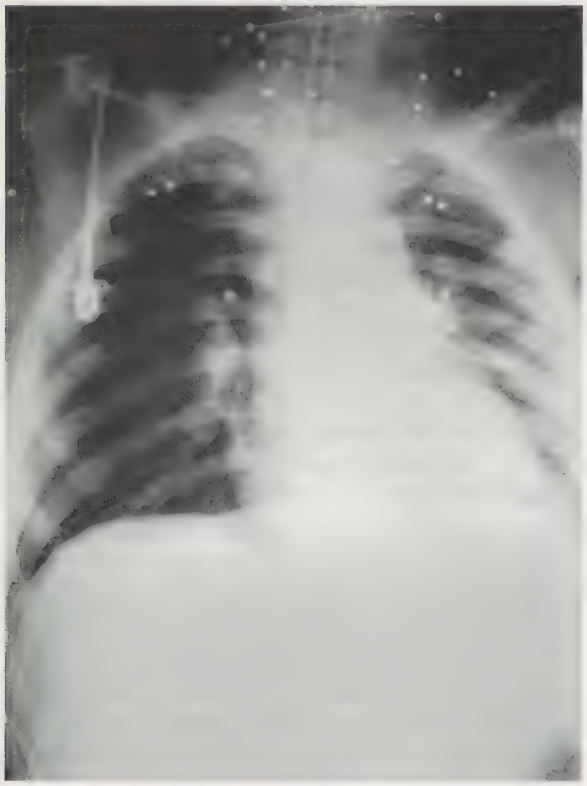

Figure 1. Chest radiograph illustrating diffuse pellet spread involving head, neck, chest, and upper extremity.

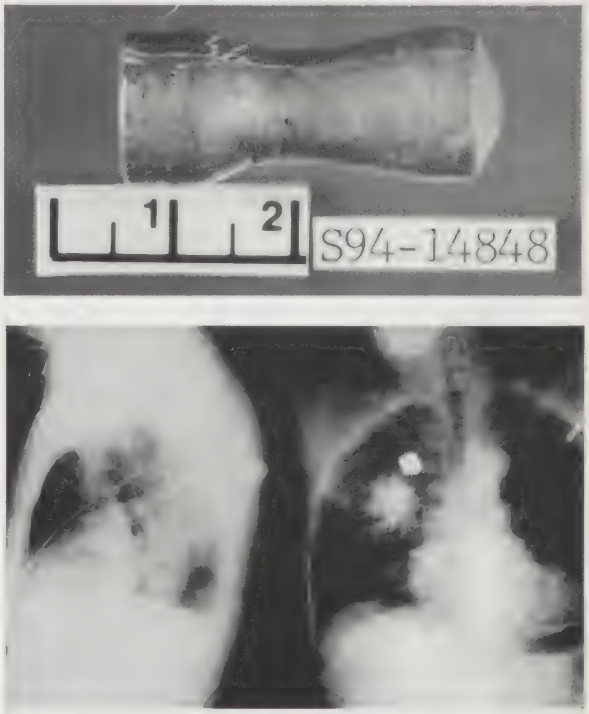

Figure 2. a) Photograph of Sabot slug with centimeter ruler; **b)** Chest radiograph demonstrating slug laying in pleural space following chest injury

with pellet wounds versus 6 (46%) with slug injuries (Table 4). Moderate disability was documented in 2 patients with pellet wounds; 1 had permanent poor hand range of motion and the other contended with loss of many teeth. Moderate disability was also determined in two patients with slug wounds; 1 was left with poor arm range of motion and the other underwent forefoot amputation. One patient with a slug wound had permanent arm paralysis and 1 patient with pellet injury required below-knee amputation. These two patients were considered to have serious permanent disability.

DISCUSSION

The incidence of gunshot injuries from our Level II trauma center in rural Wisconsin has been previously reported.[1] Over a 10 year period, 122 gunshot injuries were treated; rifles were documented in 48 (39%), shotguns in 25 (21%) and handguns in 24 (20%). No previous literature series have compared differences between shotgun slug and pellet injuries yet their incidence is the same as handgun injuries.

Shotgun shells consist of pressed paper or plastic inside of a metal casing. The casing holds the primer of gunpowder. Wadding made of plastic, paper, or cork separates the primer from the shot charge. The wadding exits with the charge upon firing.[4] The charge is comprised of multiple pellets or a single shotgun slug. Shot size refers to the number of pellets per ounce. Size ranges from buckshot to #12 shot.[5] The wounding capacity of the shotgun is related to kinetic energy; a function of mass and velocity squared.[2,6-8] Pellet accuracy and energy dissipates quickly, such that effective range is only 60 to 120 ft.[4,5,9] Pellet injuries occur over a large surface area due to pellet spread.[2,4,5,10,11] As pellets exit the shotgun, pellets spread out 2.5 cm for each meter travelled.[5] Therefore, even at close range, large surface area wounds are created. Open wounds up to 25 cm in diameter have been reported with pellet injuries (Figure 1).[5] Although the spherical pellets lose velocity quickly, they can cause extensive tissue shredding. Tissue damage is directly proportional to the specific gravity and water content, but inversely related to the elastic content of the tissue.[4]

Shotgun slugs are long and cylindrical in shape (Figure 2a). The three most common slug varieties are the American Foster, European Brenneke, and Sabot slugs.[3,12] Each has specific features to improve stabilization and accuracy up to 375-ft.[12] Shotgun slugs are comparable to high-powered rifle missiles at distances of 300-ft or less with kinetic

energy up to 1850-ft-lb.[3,12] Slugs cause narrower and deeper wounds than pellet injuries as they course along a single trajectory. Slugs frequently tumble through the tissues, imparting all of their kinetic energy as they come to rest in the tissue.

Several similarities between shotgun slug and pellet wounds were apparent from our experience. Injuries occurred primarily as the result of hunting accidents in both groups. The distribution of wounds by body region was similar. These wounds caused long-term disability with equal frequency. Despite our policy of routine intravenous antibiotic administration and aggressive wound debridement in both groups, the wound infection rates for slug and pellet injuries were 38% and 32%, respectively. Previous studies have demonstrated high rates of wound infection with up to 70% caused by imbedded wadding.[10,11,13] Both slug and pellet projectiles may carry the wadding material into the wound along with debris from clothing. This further underscores the need for meticulous debridement in both forms of injury. Tetanus prophylaxis must be assured for all of these patients, and we continue to recommend the routine administration of intravenous antibiotics.

An understanding of the differences in ballistics between shotgun slugs and pellets and review of our experience with these wounds highlights some important distinctions in their management. Shotgun slugs are single projectiles and behave in a similar fashion to high-powered rifle gunshot wounds. Management of slug injuries, therefore, parallels the management of gunshot wounds. The majority of slug wounds to the chest can be treated by tube thoracostomy alone, but transmediastinal injuries require the same diagnostic investigations as other gunshot wounds. Penetrating slug wounds to the abdomen mandate laparotomy. Extremity slug wounds require careful clinical assessment to detect vascular injury and a selective approach to arteriography based on this assessment is appropriate. In contrast, most authors advocate routine arteriography for shotgun pellet extremity wounds.[2-5,7-11,13-17] Multiple arterial injuries may be demonstrated and pellet embolization must be excluded by arteriography and remote radiographic studies.[18,19] Three patients with pellet wounds in our series underwent arteriography; two of these studies were positive. Pellet embolization from the common carotid artery to the middle cerebral artery was demonstrated in 1 patient and a popliteal artery injury was revealed in another. One arteriogram was performed in a patient with a slug wound to the neck; this study was normal. Two patients with extremity slug wounds underwent repair of vascular injuries detected by clinical examination.

The other significant difference that we observed pertained to the late management of extremity slug versus pellet wounds. Repeated debridement procedures were necessary for pellet wounds to remove devitalized tissue and foreign material. With slug wounds, this goal was accomplished at the initial procedure. Furthermore, late reconstruction with multiple plastic surgical procedures was necessary in 41% of patients with pellet wounds versus 15% of those with slug injuries. The distinction between these two types of shotgun wounds is clearly understood when comparing the differences in soft tissue injury.

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From the Office of General Counsel

Whatever Happened to Professional Courtesy? The Illegality of Waiving Co-pays and Deductibles

Kalisa Barratt, JD, SMS Associate General Counsel

The Office of General Counsel has received a number of questions relating to professional courtesy. Following is adapted from an article in the SMS publication "A Physician's Guide to Wisconsin Health Law" that addresses this issue.

Health care providers, including pharmacists, are generally prohibited from reducing charges to patients with health insurance coverage. Specifically, physicians and other health care providers may not waive co-payments and deductibles for which the patient or patient's responsible party is required to pay under an indemnity insurance plan, HMO or PPO plan. Note that this prohibition does not apply to individuals covered by self-insured plans. Nor does it apply to discount arrangements that do not involve a reduction or waiver of coinsurance or deductibles. Likewise, a total waiver, where neither the patient nor the insurance company is billed, does not implicate this law.

Charges may be reduced if the total payment for the services would impose an undue financial hardship on the individual receiving the service or product. (Wis. Stat. §146.905) The law does not, however, define undue financial hardship, leaving the determination up to the health care provider. If a physician waives the co-pay or deductible due to financial hardship, an explanation of the financial hardship should be documented in the patient's billing records.

Newly issued in 1993, the AMA's Code of Professional Ethics addresses forgiveness or waiver of insurance co-payments in section 6.12. From an ethical standpoint, it gives some guidance as to when a physician may forgive co-payments. The Code advises that a physician should forgive or waive the co-payment when financial hardship would create a barrier to needed care. In other words, financial hardship is if the patient would choose to forgo treatment because he or she could not afford to pay his/her share of the costs of the service. This can be used as a rule of thumb, but may be stricter than what Wisconsin law requires. The Code goes on to caution, however, that forgiveness may violate policies of some insurers.

A similar prohibition exists on a federal level. Physicians who offer or give anything of value to a Medicare or Medicaid beneficiary that the physician "knows or should know is likely to influence such individual" to order or receive items or services could subject the physician to civil monetary penalties. The penalties associated with this kind of activity are quite steep and can be as high as $10,000 per claim as well as triple the amount of the claim. The legislative history of this law states the provision of nominally valued services, such as refreshments, medical literature or complimentary local transportation services are not precluded. However, when a physician offers a waiver to Medicare or Medicaid beneficiaries as part of an advertisement, routinely waives co-pays and deductibles, and does not make a good faith effort to determine the beneficiary's financial need or fails to make reasonable collection efforts, it is considered an illegal attempt to influence beneficiaries to seek services. Advertisements claiming to offer "free" services to Medicare patients clearly violate this law.

Under the state's Medicaid laws, if a physician determines the cost of collecting the co-payment or deductible exceeds the amount to be collected, the physician need not attempt collection. The interplay of these two laws seems to mandate at least some collection effort on the part of the physician. Thus, Medicaid patients should, at the very least, be asked for their co-pay during the office visit. This would most likely satisfy the reasonable collection effort standard.

Under certain circumstances, waiving co-payments and deductibles may be considered insurance fraud. Consider the following example: A patient has responsibility for a 20% co-pay. Your charges amount to $100. You submit a bill to the insurance company in that amount. The

insurance company pays $80. If you do not bill the patient for the remaining $20, it could be viewed as insurance fraud. This is because your total charge for the service provided would ultimately be only $80, not $100. Thus, the insurance company would only be responsible for paying $64 (80% of $80.)

Historically, many offices offered professional courtesies to employees and other health care providers. Note that the only way to not violate the above-mentioned laws is to either provide the service completely gratis or to give an across-the-board discount to both the insurer and the patient. This would probably still not satisfy federal laws that prohibit inducements for referrals. As a result, many people are being advised to draft policies that will eliminate professional courtesy entirely. Legal counsel should be sought if your office decides to try to draft a policy otherwise.

Wisconsin Donor Registry Proposal—Continued from page 29

outset, it is prudent to plan for this eventuality.

Resource Requirements

At this time, it is premature to speculate on the cost of implementing a donor registry. It is anticipated that programming expenses will be incurred and the license application will need to be modified. Once implemented, recurring incremental costs related to maintenance of the registry could be shared with local agencies or underwritten in their entirety by the State. Development of collateral educational materials for distribution by the DMV to the public or specific training materials for DMV personnel could be supported by local organ and tissue procurement agencies. It is anticipated that the expected start-up costs and annual maintenance expenses will be delineated in the program feasibility study.

Summary

An opportunity exists to utilize an existing publicly supported information system as an economical means to address a significant health care issue. The creation of the Wisconsin Donor Registry will provide timely access to documentation regarding an individual resident's declaration of intent to be considered an organ or tissue donor. The Wisconsin Donor Registry will be the nation's first legally binding registry of potential organ and tissue donors. This partnership between the State and the transplant community will ensure that the individual's right to direct this aspect of their health care is honored, that fewer opportunities for organ and tissue recovery are missed and, most importantly, a greater number of Wisconsin residents gain access to this scarce and valuable resource.

When Time is of the Essence—Continued from page 21

Wisconsin thanks to our relationships with other medical centers, nationally 38% of families of people who could become donors decline," said Sollinger, "plus, in 12% of other cases, health care professionals fail to approach the families. That is potentially 50% more organ donations than we are getting currently."

Recent federal requirements to report imminent deaths and fatalities to OPOs may help increase these percentages.

"It is too early to tell since the requirements just went into effect in October," said Sollinger.

The experts say there is no religious basis for declining to donate organs; in fact, according to national organ donation organizations such as UNOS (United Network for Organ Sharing) all the major religions in the world endorse organ transplantation. In addition, most people, at least in the United States, are for it.

"About 80% of US citizens say yes to the idea of organ transplantation," said Hoffman. "Perhaps it is the timing of it; approaching someone so soon after losing a loved one, especially in a tragic, unexpected way. But, the problem is that it has to be done in a timely way to prevent losing an organ by waiting too long to get permission."

Increasing Donorship

Nearly all physicians, especially family and general practitioners, can take a role in increasing organ donorship.

"Though they personally might not ever be involved in a case, the least physicians can do is have literature available in their offices," said Adams, "and make asking about signing the donor card on a drivers license as part of the continuation of care, just like you would ask a patient if he or she smokes."

Public and professional education about the nature of organ donation is critical, added Sollinger.

"Remember, more than 30% of families that lose a loved one that is eligible are not even approached in the ER or ICU. We need to alert medical professionals, anyone who deals with patients, to help raise awareness," he said. "That's where it starts; grassroots efforts, in small clinics and hospitals, discussing facts about organ donation. Say, someone in their 40s has a massive stroke or a terminal brain injury. If that doctor does not think about discussing organ donation with that family, or with that person beforehand, we could lose three or four lives that could have been saved."

Your Financial Fitness

Choosing Annuities

Michael J. Dolan, CLU, ChFC, President,
SMS Insurance Services, Inc.

An annuity can supplement tax-qualified retirement plans, providing additional retirement income that you can't outlive.

Annuities are a form of insurance that provides income while you're alive instead of a death benefit to your survivors. There are many different kinds of annuities, and they are sold in a variety of ways. Here's what to know before you buy.

Annuities may be deferred or immediate, fixed or variable.

With a deferred annuity, you make one or more premium payments, then accumulate the money free from taxes until you start withdrawals. A deferred annuity is often a good choice for someone who has put as much money as possible into a tax-qualified retirement plan such as a 401(k). The premium itself is not deductible but earnings are sheltered from income taxes during the accumulation period.

Bear in mind, however, that there are often significant surrender penalties if you need your money before seven to 10 years have gone by. You may also face tax penalties if you withdraw money from an annuity before you reach age 59½.

Michael J. Dolan is president and chief operating officer of SMS Insurance Services and a member of the National Association of Life Underwriters. He can be reached at SMS **ext. 550**, or via e-mail at: **MICHAELD@smswi.org**

With an immediate or income annuity, the stream of distributions starts as soon as you pay the premium. Buying an income annuity can be a good way to use part of a lump sum distribution from a 401(k) or other retirement plan, and to make sure that the money will last as long as you live.

Fixed annuities accumulate at a predetermined rate of interest, set by the insurance company. The interest rate may be adjusted from time to time, although some policies guarantee a minimum interest rate.

With variable annuities, the amount you eventually receive is linked to the performance of an underlying investment fund or funds that you select. There can be significant fees on variable annuities, because you must pay the portfolio management fees of the underlying funds as well as the administrative fees attached to the annuity itself.

When considering variable annuities, then, you should make sure you can attain enough growth to offset the cost. In addition, as with fixed annuities, there are often surrender charges within the first seven to 10 years. Variable annuities are securities products as well as insurance, so you will also receive a detailed prospectus which outlines these expenses and fees.

Some annuities include a guaranteed death benefit. Should you die before pay-outs begin, your beneficiary will receive the current value of the annuity (or, at the very least, the amount you invested if it's a variable annuity).

Pay-out Options

With all annuities, you can select among several pay-out options. Typically these options include payments for as long as you live, payments for as long as you and your surviving spouse live, or payments for a guaranteed minimum period. Specific amounts will vary but, in an example provided by one issuer, the purchaser of a $100,000 immediate annuity could receive $788 a month for life. Alternatively, he could receive $739 a month, with the guarantee that payments would continue to a beneficiary for at least 10 years even if he died before then. Or he could receive $636 a month for his own lifetime, with the same amount continuing for life to a surviving spouse.

Classified Ads

Dean Medical Center a 395+ physician multi-specialty group is actively recruiting a BE/BC Internist for our Riverview Clinic in Janesville, Wisconsin (population 60,000 and is located 40 miles southeast of Madison). Janesville is a beautiful, family oriented community with excellent schools and abundant recreational activities. There are 60 physicians located at our Riverview Clinic which is a new facility overlooking the scenic Rock River. Currently there are 12 internal medicine physicians at the Riverview location. The call schedule will be 1 in 12 for weekdays and weekends. Excellent compensation and benefits will be provided with full time employment leading to shareholder status in two years. For more information contact Scott Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, Madison, Wisconsin 53715, work (608) 250-1550, home (608) 845-2390 or FAX (608) 250-1441.
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Luxemburg, Wisconsin - The Luxemburg Clinic, an affiliate of St. Vincent Hospital, is expanding its family practice department. This primary care medical practice is located approximately 15 miles east of Green Bay in the town of Luxemburg, (pop. 1,400), in Kewaunee County. Enjoy a safe, family oriented community with excellent schools, surrounded by lakes, streams, forests, and farms. Excellent compensation and benefits are provided. Contact Claudine Taub @ 1-800-236-3030, ctaub@stvgb.org, or fax: 920-431-3043. 9,11/98

Southeast Wisconsin Primary Care Physician. Bethesda Lutheran Homes & Services, a leader in the field of providing services to individuals with developmental disabilities, is seeking a full time licensed physician. As part of our medical staff, you will provide primary care services for residents and work closely with the interdisciplinary team. This is a professionally and personally rewarding position for a caring medical professional. We offer a competitive salary and paid liability insurance. Please send CV to: Human Resources Representative, BETHESDA LUTHERAN HOMES & SERVICES, INC., 700 Hoffmann Drive, Watertown, WI 53094, (800) 383-8743, ext. 471.
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FAMILY PRACTICE - Franciscan Skemp Healthcare-Mayo Health System, based in La Crosse, WI, has over 170 physicians/associate providers at 12 clinics and three hospitals in WI, MN, IA.

Waukon, IA: BC/BE family physician with interest in the full range of family medicine, including OB, to join 3 BC family physicians and 2 certified PAs in brand new clinic facility. The Waukon Clinic adjacent to 40-bed community hospital. Waukon, pop. 4,000, located in beautiful northeast Iowa, 17 miles from Upper Mississippi River and 50 miles from La Crosse.

Prairie du Chien, WI: Developing new practice and building new clinic facility located on Upper Mississippi River, 60 miles south of La Crosse. Two BC/BE primary care physicians and associate provider needed to staff our newest medical facility in community of 6,000 with service area of 22,000. Community hospital has 49 beds. OB is preferred, not required.

Sparta, WI: BC/BE family physician needed due to upcoming retirement. Full range family medicine practice, includes OB. Clinic has 10 primary care doctors and 7 associate providers, including CNM's. Clinic is attached to the hospital. Sparta, a community of 8,000; has a service area of 25,000 and is located 45 miles from La Crosse.

Tomah, WI: BC/BE family physician to join 7 family physicians, 5 associate providers and 3 other specialists at new clinic facility, located on lake adjacent to recently remodeled 45-bed hospital. Tomah has a population of 8,000 with service area of 25,000 and is 45 miles from La Crosse.

Contact: Tim Skinner at skinner.timothy@mayo.edu or Bonnie Guenther at guenther.bonnie@ mayop.edu Phone: 800-269-1986 or fax CV to 608-791-9898. Franciscan Skemp Healthcare-Mayo Health System, 700 West Avenue South, La Crosse, WI 54601. 10-12/98

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Lancaster, Wisconsin. Dean Medical Center, a 395 physician multi-specialty group, is actively recruiting for a BE/BC family practice physician for its Grant Community Clinic in Lancaster, Wisconsin (population 4,200). Their current staff consists of two family physicians, one internist and one general surgeon. The group also has one physician assistant and one nurse practitioner on staff. Each physician works four days per week, seeing an average of 25 patients daily. A minimum $120,000.00 guaranteed salary plus incentive is provided. For more information please contact Scott M. Lindblom, Medical Staff Recruiter, Dean Medical Center, 1808 West Beltline Highway, 1-800-279-9966, (608) 250-1550, FAX (608) 250-1441 or at home (608) 845-2390.
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December 1998

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With Changes Comes Change

by Thomas Meyer, MD, WMJ *Medical Editor*

As you may have read in Managing Editor Judith Burke's November column, she has chosen to move on to the warmth of her native Florida and the lure of an Executive Directorship of the National Perinatal Association. We will miss her creativity and dedication at the *WMJ* offices, but wish her well in the new and different pressures of that post. Kendi Parvin, Judith's successor, was thrust rather rapidly into the role of Managing Editor with little ceremony but great relief on the part of those of us who labor to produce a journal worthy of the Society and its membership. Please join with the Editorial Board in welcoming Ms. Parvin.

Almost simultaneously, the Editorial Board was presented with the prospect of a drastic budget reduction, which will be decided by the SMS Board of Directors as this issue goes to press. The degree of reduction will determine the frequency of publication of the *WMJ* in 1999 (see "Editorial Board Faces Possible Budget Cuts", p. 9).

That said, my task is to introduce you to this issue of *WMJ*, "The Aging Boomer." In *Baby Boomers Likely to Go Out With a Bang* (p. 24) and *Growing Old Doesn't Mean Growing Ill* (p. 28) Marc Kennedy provides the lead to what is, perhaps, the main message of this issue: surely we should become evermore proactive with preventive measures in the maintenance care of 55-year plus patients. Above all, we should urge, cajole and direct that population of patients to plan active, involved and fun lives following initial retirement. They should be looking for substantive volunteer activities, maybe part-time jobs, but certainly things that keep them physically, intellectually and emotionally satisfied.

As they retire, many Boomers are playing a bigger role in their own health care. With newfound free time, they search the Internet for medical information. Some is good, some is not. *The World Wide Web: What Physicians Should Know When Patients are Surfing the Net* (p. 31) offers physicians tips for answering patient's questions and pointing them in the right direction.

Just one scientific paper bears direct relationship to the "Aging Boomer." *Stress and Hypertension* (p. 34) is a well-referenced review of the current understanding of the stress factors contributing to hypertension and measures which might be suggested to remedy the stress. Work is, more often than not, stressful and people may find solace in some of the measures suggested when little can be done in the work situation to alleviate stress.

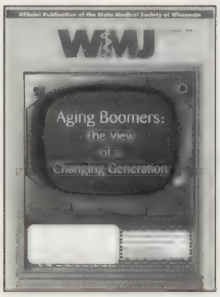
Two articles about HIV infection (p. 47, 52) by Dr. James Vergeront, MD, and his associates offer concise summaries of the current understanding of the epidemiology, assays, counselling and testing in the primary care setting including the testing of pregnant women, infants and young children and post-exposure prophylaxis. Doctor Vergeront et al's companion article relating to the Wisconsin Statutes makes the two a valuable reference source that should be retained for reference in case situations arise in the course of everyday practice.

The report on the current management of peripartum hemorrhage in Doctor Dorothy Skye's article (p. 43) as a member of the Society's Maternal Mortality Study Commission provides a concise review of the options which are available during these events which can be as alarming as they are sometimes frightening. It is reassuring to review a protocol that may be useful under these circumstances. Doctor Pamela Propeck's report (p. 39) on the results of her survey of breast imaging services in Wisconsin provides some insight into the diversity of Wisconsin facilities offering mammography together with their respective policies and practices.

Finally, every four years, the SMS develops a new strategic plan. The Board of Directors and the strategic planning committee examined the Society's rich history and core purpose – advancing the health of the people of Wisconsin – and developed a plan that refocuses the Society's efforts and positions for a continued prominent role in health care in the future. Doctor Mark Andrew introduces you to that plan and a summary on page 5.

WMJ

Official Publication of the State Medical Society of Wisconsin



COVER THEME
AGING BOOMERS

The view of the Baby Boomer appears impressive. To date, Boomers represent the healthiest and wealthiest of generations. However, as the most populous age group in the United States, they also face many obstacles and challenges. From raising children and taking care of their parents to maintaining their own health, Boomers are finding that life in the Nineties can be quite complex. This issue of the WMJ *examines the mental and physical aspects of today's Baby Boomers – an adapting generation.*

Cover design by Scott Breuchel, TypeTronics

DEPARTMENTS

EDITORIALS

FOCUS ON THE AGING BOOMER

December 1998

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President's Page

No Butts About It, Money Must Support Education

by John D. Riesch, MD

Vietnam and Woodstock. Government cover-ups and assassinations. Technological advances and a love for the environment. Baby boomers certainly had their share of societal problems and unique influences. What better time for the tobacco companies to showcase the advantages of their products. Cigarettes, baby boomers were told, bring relaxation, exhibit coolness and add to the social ambiance. No mention of the cancer risks or the dangers of second-hand smoke. "Get 'em addicted and it's money in our pockets," the tobacco companies must have thought. Of course, now it's the baby boomers (and every other generation) and the tobacco companies that are paying the price—although one with money and the other with their health.

Last month Governor Thompson and Attorney General Doyle announced the state's participation in the largest civil settlement ever—one that will dramatically reshape the way cigarettes are sold and marketed in America. The $206 billion settlement resolves state claims for health care spending on smokers who have become ill due to tobacco use. In all, 46 states signed onto the deal.

In response to the settlement, I released a statement on behalf of the State Medical Society of Wisconsin. While the settlement fails to meet all of the SMS's desires (e.g., FDA regulation of tobacco companies, education and prevention programs), it does hold tobacco companies responsible for the damage to public health.

"Six billion dollars [Wisconsin's share] is a lot of money by any standard, but we must not forget how much damage the tobacco industry caused and continues to cause in Wisconsin. That's why state lawmakers should use the settlement money to prevent children from smoking and help smokers quit.

"Smoking-related medical expenses cost Wisconsin residents nearly $1.4 billion a year, and will continue to cost us an astronomical amount of money and unending heartache, unless we take aggressive steps to convince people to give up this deadly habit. More than a third of Wisconsin's young people smoke, so we still have a lot of work to do.

"It only makes sense that a significant portion of the funds go toward starting to rectify the problems this industry has caused. Comprehensive tobacco control efforts and a massive public education campaign are necessary and will be expensive. Wisconsin physicians are committed to helping their patients quit, but they need help in doing so.

"Wisconsin residents should contact Governor Thompson and their state lawmakers to ask that this tobacco settlement money be used responsibly, to thwart the efforts of an industry that has acted so recklessly for so many years.

"This has been a long and complicated process, and Attorney General Doyle deserves our thanks for his diligent efforts to accomplish what is truly a significant step toward reducing the horrendous consequences of smoking."

The State Medical Society is taking steps to help educate young people, something we feel the settlement falls short of. Physician volunteers from throughout Wisconsin are needed for an anti-smoking school program which includes a video that demonstrates the dangers of tobacco use. Earlier this year, the video program entitled *"Smoking: Truth or Dare"* ran on every television market in the state followed by public service announcements featuring SMS physicians. Now, in combination with the video, physicians will answer student questions and help teach the curriculum established by the Wisconsin Education Association Council, an SMS partner in this venture. Volunteer physicians will be trained on how to present the information in class. For the convenience of physicians, the program requires only a one-time, one class period commitment. If you are interested in volunteering for this program, please contact Leslie Selby, Director, Community Health Projects at SMS ext. 230 or via e-mail at LESLIES@smswi.org. Working together, we can help end the threat of tobacco-related illnesses.

Mark H. Andrew, MD

The SMS— Advancing the Health of the People of Wisconsin for Over 157 Years

Mark H. Andrew, MD, Chair, SMS Board of Directors

Every four years the State Medical Society of Wisconsin (SMS) develops a strategic plan. This year we addressed the process somewhat differently. One of our first tasks was to look back at the organization's roots. Why do we exist? What is our core purpose? During this process we reflected on the rich history of the SMS.

In 1841, the physicians of what was to be Wisconsin organized to become a medical society. Their core purpose was to advance the health of the people within their care by learning from each other and making sure those that could make a difference addressed the health concerns of the day.

For over 157 years, the organization has held the same core purpose—advancing the health of the people of Wisconsin. I believe, though, the economic issues of the last 15 years—such as managed care, the liability crisis, and the required documentation to support insurance and government programs—have clouded our patient-focused purpose a bit. While the economic issues facing us are important, we need to always view them within the context of the longstanding purpose and values of this organization.

I personally believe, as does your Board, that we need to refocus and redirect our efforts back to our roots. The SMS is the longest running association in the state of Wisconsin because the core purpose and values have driven the behavior and action of the organization.

The Board of Directors and the strategic planning committee spent a good deal of time developing a plan that refocuses our efforts and positions the SMS for a continued prominent role in health care in the future.

Please review the summary of the strategic plan that follows. Please feel free to comment on the plan or the process. The complete document is available on the member's only side of wismed.com or you may request a copy by calling Linda Syth at 608/257-6781 or 800/362-9080, or via e-mail at LINDAS@smswi.org.

A Summary of the SMS Strategic Plan

This narrative is designed to provide the reader with "the strategic story" as viewed by the members of the Strategic Planning Committee and SMS Board of Directors. We have attempted to communicate not only our proposed strategy for the future, but to give you, the reader, an understanding of how and why we reached the conclusions we did.

We view strategic planning as an ongoing process, and encourage dialogue to add to the story and even change the story. We have approached this effort with the following spirit:

If we could ask one thing of a crystal ball

in every new situation it would not be

"What's wrong and what will fix it?"

It would be

"What's possible here and who cares?"

Setting the Stage

The State Medical Society of Wisconsin (SMS) is generally viewed as an effective organization in the political arena. However, the challenge of shaping the future of health care in Wisconsin will become increasingly difficult, and while SMS appears to be in a position to effectively respond to those challenges, some are not convinced the organization will take the steps needed to be successful.

The physician advocacy role of SMS will continue to be important.

As more physicians practice medicine in large competing groups, it will be increasingly difficult to achieve consensus on issues related to physician advocacy. Complementary to a strong role as a physician advocate, SMS could choose to strengthen its position as an advocate for quality health care and for patients. Although patients very often view their physician as the primary advocate for (their) quality care, the SMS is probably more often seen (by those outside the organization) as interested in protecting the role and the "pocketbook" of physicians. Part of this perception stems from a general cynicism of organizations, but part of it also comes from a failure on the part of SMS to articulate a set of core and driving principles that shape its policy and advocacy through insight and foresight rather than in reaction to initiatives driven by others.

There are opportunities to develop stronger relationships with other organizations; for example, integrating efforts with specialty societies, establishing a dialogue on key health care issues among major players, and working with podiatrists and dentists on common issues. SMS would like to be a shaper and primary influencer of decisions based on quality data, a respected leader in the health care debate.

As resources in health care become increasingly limited in comparison to growing needs, who will make decisions about allocation of resources? How will those decisions be made? Will SMS be a major player in such decisions?

It will be critically important for SMS to define its role and value with large group practices throughout the state. While greater influence by large groups will be viewed by some as a problem, a failure to provide value to physicians in large groups will mean a very limited future for SMS. Evidence indicates that physicians in larger groups often see less value in membership in a local or county medical society since much of what county societies have traditionally provided is now available within the group practice, e.g. networking, sharing of ideas, business services.

There is a perception, whether based on reality or not, that SMS reflects the opinions of, and mostly serves, older physicians and those in small groups or solo practice. In reality, the leadership of SMS is representative of a cross-section of practice modes and experiences.

There is concern about the lack of connection with young physicians, women physicians, and academic physicians. Perhaps somewhat surprisingly, membership market share of physicians between 30 and 35 years of age is not significantly lower than that of other age ranges:

Age Range	Member Market Share Males	Member Market Share Females
30-35	70.54%	64.60%
36-40	72.26%	64.20%
41-45	71.93%	68.79%
46-50	74.34%	69.40%
51-55	87.87%	66.94%
> 55	75.57%	57.55%

The membership share of around 70% for SMS is one of the highest among state medical societies in the country. But the future is not the past, and significant membership challenges must be addressed quickly.

The Good News

What are the strengths of SMS today? Strengths on which we can build?

First and foremost, SMS has a long and generally positive track record of political advocacy. Secondly, SMS is uniquely positioned to serve all physicians — if we can attract and actively involve large numbers of physicians representative of the demographics of physicians in Wisconsin. Thirdly, SMS has often worked successfully in support of patient advocacy issues, and in support of the patient/physician relationship. Additionally, there is a positive team approach among SMS staff and physicians. SMS leadership is supportive of technological advancement and has developed innovative, cutting-edge programs like the Medical Outcomes Research Project (MORP).

What opportunities are available? We believe there are some very strategic opportunities available to SMS. Specifically, opportunities to:

- Fulfill a leadership role in shaping the future structure of health care in Wisconsin,
- Be a champion for the patient AND the physician,
- Achieve increased professionalism — meet the responsibilities and be provided the privileges of professionalism,
- Unite physicians — through successes in patient advocacy that will make physicians proud to be a member of SMS, reaching out and involving a wide diversity of physicians in the decision-making and activities of SMS, through involvement in community affairs.

The Bad News

As an organization, SMS has some significant weaknesses that should be addressed. Members of the Board of Directors of SMS identified an inability to effectively deal with conflict within the diversity of member viewpoints as a current weakness that will become a greater challenge in the future. They noted concerns regarding the image or perception of SMS — a weak image as patient advocate;

Core Purpose

To advance the health of the people of Wisconsin

Core Values

- Professionalism — as a social contract between physicians and society
- Honesty, integrity, and ethical behavior
- Service above self
- Respect and collegiality
- Open dialogue among physicians, patients and the public
- Innovation and education

Envisioned Future

Become the leader in Wisconsin in patient advocacy and health policy decision making and an organization physicians believe is essential

viewed as reactive rather than proactive; the perception of being a "good ol' boys" network.

There are membership concerns, including (i) a failure to attract young, academic, and female physicians as active members; (ii) the apathy of many members, particularly in the political arena; (iii) no longer having the PIC insurance hook; and (iv) the high cost of dues.

Perhaps most significant, SMS has not developed an effective way of communicating what it stands for and what it is already doing and accomplishing. This message is not getting through to members, potential members, key influencers of public policy, nor the general public.

Finally, members of the Board of Directors noted that SMS has at times failed to lead and make timely decisions. Physicians have not traditionally focused on leading change, raising concerns as to whether the policy-setting process of the organization is sufficiently "fast, fluid, and flexible" to position SMS as a leader rather than a reactionary.

Looking to the future, we have identified threats to future success. There is a growing challenge in providing value to individual physicians, especially those in large groups. All physicians benefit from advocacy efforts, whether or not they join the Society. The cost of paying SMS and county society dues for a large number of physicians is a significant cost that will increasingly undergo scrutiny on the part of group management. And in some instances, physicians may feel conflict between positions on public policy issues taken by their organization (network, hospital, etc.) and positions taken by SMS. Additionally, as mentioned earlier, large groups will often provide their physicians with some of the services and benefits traditionally provided by organized medicine. Other identified threats include (i) increased challenges in the legislative and regulatory environments; (ii) a feeling of apathy and powerlessness among physicians; (iii) less time and energy available from physicians to devote to SMS; and (iv) fewer members resulting from early retirements and fewer physicians.

Finally, we recognize increased competition from other organizations, including large groups, specialty societies, unions, competitive insurance markets, etc.

The challenges are real, but so are the opportunities.

Resolution: How We Win

So what do we propose? How will SMS position itself for success in the future?

First, we propose both continuity and change. We think it important that SMS — its leaders, staff, and members — agree on what will be preserved (a Core Ideology of Purpose and Values) and also articulate what the organization seeks to become in the future (Envisioned Future). SMS should do what it takes and change what is appropriate as long as the underlying purpose and values of the organization are not altered.

Second, we propose an increased emphasis on our role as patient advocates.

While physicians are becoming increasingly diverse in many respects, most physicians are themselves in the profession because they are interested in improving the health of patients and their communities. They see themselves as patient advocates. And they will see an organization

that puts patient advocacy first as an essential organization that they will be proud to join.

We recommend initiatives to improve the health of Wisconsin citizens and to strengthen and protect the patient/physician relationship.

Third, we propose a strong leadership role for SMS in shaping health policy and health care delivery in Wisconsin.

SMS should be the best source of accurate health care policy information in the state. SMS should achieve the position of being recognized as the leading authority on health policy — recognized by physicians, the public, legislators and governmental officials, other health care organizations, and payors. SMS should aggressively work to achieve a quality-driven cost-efficient health care delivery system in Wisconsin. Referring to an earlier question, will SMS be a major player in decisions about allocation of resources? The answer should be commitment to a resounding "Yes."

Fourth, we propose renewed efforts to establish a variety of strategic relationships to collaborate and share expertise in the achievement of common goals.

We view these strategic relationships as an important outcome, not simply as a means to achieving common goals. We recommend developing significant relationships with county societies, specialty societies, group practices, allied health providers, medical educators, WMGMA, integrated health systems, the SMS Alliance, and a variety of others. Some of these will be more formal than others; the emphasis should be on relationships that support our Core Purpose and Values.

We recognize the inherent differences in perspective and goals among physicians on some issues. We anticipate the need to develop strategies to address these differences and to deal effectively with conflict as part of our leadership role.

Fifth, we propose achieving a renewed sense of professionalism for physicians.

We reviewed a "Framework for Professionalism" that originated from planning work at the American Medical Association. This one-page document (see Appendix) defines the responsibilities and privileges of professionalism, and views professionalism as a social contract between a group and society that is based on trust. We propose that SMS work to strengthen the level of trust between physicians and the citizens of Wisconsin.

Sixth, we propose achieving SMS membership of 90% of the physicians in Wisconsin.

We talked about whether this should be an objective in and of itself, or whether it would be the result of achieving success in the other initiatives described in this plan. That is, "if we build it, they will come." But we view membership as critically important, not simply from the financial perspective, but rather, as a strategic position. SMS cannot fulfill its purpose, nor become "the leader in Wisconsin in patient advocacy and in health policy decision making and an organization physicians believe is essential" unless it represents and actively involves the physicians of Wisconsin.

All physicians? Our answer would be "all physicians who support the core values and purpose of SMS." We recognize this will require significant changes both economically and philosophically.

Letter from the Editor

Editorial Board Faces Possible Budget Cuts

by Thomas C. Meyer, MD, Medical Editor/Chair, WMJ Editorial Board

When the Editorial Board met November 6, two items, neither of which were on the agenda, dominated the discussions.

The first item came during SMS Executive Vice President John Patchett's report, namely that the Executive and Finance committees would probably have to recommend to the Board that the Journal's budget be cut. This is because the Society is experiencing increasing costs with no corresponding increase in income. And because WMJ advertising revenues cover just over one quarter of the Journal's publication costs, Mr. Patchett's suggestion was to reduce the frequency of WMJ publication.

The second unscheduled agenda item was that Judith Burke, SMS Director, Communications and Publications, had resigned to accept a position as executive director of the National Perinatal Society, based in her native Tampa, FL. November 6 was, in fact, Ms. Burke's last full day at the State Medical Society.

One of the principal agenda items was discussion of the reader survey results. Despite the rather disappointing return of approximately 3.5 percent, there were a sufficient number of sage comments and suggestions mixed in the return to provide food for thought.

What were the principal outcomes of the Editorial Board discussions? Primarily, we were pleased and relieved that Kendi Parvin, who joined the SMS staff in September, is well qualified to take over the responsibilities of managing editor. In addition, Ms. Parvin will take over the layout of the Journal, a function previously contracted out. Bringing layout in-house will reduce costs. Secondly, we resolved to try to increase advertising revenue even though we recognize that pharmaceutical companies are currently investing in direct promotion to the public (Ahhh, Allegra), rather than to professional journals. In addition, we decided that we should increase the number of scientific articles published per issue from four to six. Further, we would try to find alternative means of providing some administrative and organizational items which are usually contained in the annual report—the issue that is the most expensive to produce.

We also discussed theme issues for 1999. While this was clouded by uncertainty as to the number of issues, the themes receiving the most support, in no particular order, were Evidence-Based Medicine, Minimally Invasive Surgery, Osteoporosis, Cancer in Wisconsin, Maternal and Child Health, Domestic Abuse, Asthma, Firearms, End of Life Issues, and Sleep and Sleep Disorders.

Finally, we are open to any thoughts or comments from the membership relating particularly to promoting the scientific and collegial nature of the Journal, obtaining additional funding, and continuing improvement of the quality and general interest of the Journal. Your thoughts would be greatly appreciated, personally acknowledged and could be published (in part or completely) in the form of a letter to the editor.

Doctor Meyer is with the Office of Continuing Medical Education at the University of Wisconsin and Emeritus Professor of Pediatrics; he is former Vice-President for Medical Affairs at St. Mary's Hospital Center (1986-95). Doctor Meyer has been Chair of the WMJ Editorial Board since 1995.

Letter to the Editor

October *WMJ* cover inappropriate

With reluctance it is necessary that I write you a letter regarding the October 1998 issue of the *WMJ,* which is the official publication of the State Medical Society of Wisconsin. The magazine arrived on my desk today. This magazine depicts a totally nude woman standing at an angle on a scale. This, to me, was an inappropriate subject for the medical journal cover. It has little relevance in regards to the subject matter of "obesity and eating disorders." If it was necessary, it should have been inside the issue. This shows a lack of sensitivity, awareness and perception by the editorial staff for this particular picture.

Furthermore, this magazine is published, printed and then shipped through the mail. It is not a covered magazine, and as such is seen by the general public. It comes then into the office or homes of physicians around the state.

In this day and age when we have very sensitive issues nationally, this cover shows lack of awareness. I am greatly disturbed by this. We must be the advocates for the public and our patients. This picture on the cover does not speak to that.

Michael P. Mehr, MD, FACP

George Thomas Jones, MD

Physician's Commitment to Kids Benefits Community

by Steve Busalacchi, Director, News & Information

It actually was a "dark and stormy night" when Beloit's **George Thomas Jones, MD,** received his Physician Citizen of the Year Award from the State Medical Society of Wisconsin. On November 10, 1998—exactly 23 years to the day that a similar but weaker storm caused the wreck of the Edmund Fitzgerald on Lake Superior—hurricane force winds blew, knocking over trucks and toppling trees.

Despite it all, the ceremony at Beloit Memorial Hospital went off without a hitch. "I was really pleased that they were still able to make it," said an appreciative Dr. Jones. But he is the one who has earned the appreciation of the community. That's why SMS President John Riesch, MD, braved the treacherous wind to present the award in person.

"Not everyone can be the team physician for the Beloit Memorial High School hockey team, not everybody can coach Little League, lead a Cub Scout Den and be a host father for an AFS student. But of course, Dr. Jones did all of that," said Dr. Riesch during the award presentation.

The Right Stuff

Seven years ago, the SMS opened the nomination process for the award to the public. Based on these nominations, the SMS Commission on Public Information selects up to eight Physician Citizens of the Year from various medical society districts in the state. The award honors its recipients for the uncompensated civic, cultural, economic and charitable services they have provided to their local or state communities. It recognizes physicians like Dr. Jones, who have given of themselves to improve their community and state.

Of all his volunteer efforts, Dr. Jones remembers most fondly his efforts in the campaign to sway public opinion in favor of a $26 million referendum to build an addition to Beloit Memorial High School. He spread the word about the need for a bigger school in talks to the Rotary Club, the steelworkers' union, senior citizens groups and other organizations.

"In a community where taxes are high, it was a phenomenal accomplishment," says Bette Lang, Superintendent of the School District of Beloit. "He's a very, very persuasive person. . . because it comes from his heart. If Dr. Jones didn't convince you it was necessary, he at least neutralized your negativity," Lang added.

More Space, More Learning

Thanks in large part to Dr. Jones' efforts, the high school has a science laboratory, new computer systems and significantly increased curriculum. The school, built in 1940, simply wasn't large enough to accommodate all of the students. "There was an urgent need to educate kids, and that involved spending some money," says Dr. Jones.

Doctor Jones never has forgotten the extraordinary value of education, having grown up in a small town where most residents, he says, were blue collar workers who earned a modest living. "For me, education was an opportunity to learn about the world, an opportunity to go into a field I love, and that I still love and enjoy," the internal medicine specialist stated.

But Dr. Jones does more than talk about his love for medicine. How many doctors do you know who've made rounds in their hospital gown, while wheeling their I-V drip around with them?

"Doctor Jones just recently underwent surgery and chemotherapy for cancer. While still in the hospital as a patient, he continued to take care of his patients. And shortly after he was released, he started digging in again to his community volunteer involvements," wrote Debbie Vorass, of the Rock County Tobacco Free Coalition. Vorass, who nominated Dr. Jones for the Physician Citizen of the Year Award, added, "He is an inspiration to everyone he meets and a role model to several adults and youth alike."

Doctor Jones' unusual "rounds" were as therapeutic for him as they were for the sick people he visited. "In a way, it was a continued interest in my patients, but it was also a little bit of an escape from my own illness. I would drop in and see my patients, not as their official physician, but as their personal

physician to encourage them to get well."

The physician took yet another step and agreed to participate in a local radio program called "Discovering Wisconsin," to discuss what it is like to go through cancer. Doctor Jones says it helped him explore his own feelings and helped him to communicate to family and friends how much he appreciated their concerns and good wishes. But there was another reason: "I could help other people who have cancer or had relatives who were suffering from cancer so they could understand the disease better."

How Dr. Jones manages to participate in so many activities is something he simply shrugs off. "I don't need a lot of sleep. That's the secret."

Maybe it's not so surprising that so many Beloit residents refused to let a major windstorm prevent them from honoring Dr. Jones.

A Look Back to Look Forward — Continued from page 23

they see that the actions of the health care providers and this committee have continued to improve the health care of mothers and expectant mothers. They will find us in accordance with earlier committee statements that, "Complete and correct ascertainment of all maternal deaths remain important. It allows accurate assessment of the magnitude of maternal mortality and evaluation of trends in risk of death, with increased identification of groups who are at increased risk. An understanding of the characteristics of maternal deaths and the risk factors for pregnancy related morbidity and mortality can lead to prevention strategies."[6]

To help ensure progress, this month's *WMJ* continues the Maternal Mortality Committee's educational efforts with Dr. Dorothy Skye's pertinent review of management of peripartum hemorrhage. The committee has other articles planned based upon trends we are seeing during committee reviews.

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Who's In The News

Terry Hankey, MD

Charles V. Ihle, MD

Lorraine Jackson, MD

Douglas Reding, MD

Karla Roth, MD

Mahmoud Ahmed, MD, joined Marshfield Clinic's staff at Sacred Heart Behavioral Health Clinic in Eau Claire. He received his medical degree from Cairo University Medical School, Cairo, Egypt and served a residency in psychiatry at Winnebago Mental Health Institute in Winnebago. He is also a regular guest on "Mental Health Today" on Wisconsin Public Radio.

Marshfield Clinic-Mosinee Center family practitioner **Jerome C. Andres, MD**, plays a role in identifying communicable diseases through a national Sentinel Physician program for the Wisconsin Division of Health. He reports certain communicable diseases he sees in his office which are then sent to the Marathon County Health Department or the Centers for Disease Control and Prevention in Atlanta, GA.

Waupun Memorial Hospital recently held its "Celebration of Life." Three physicians from the Elm Avenue Clinic in Waupun shared their insight into several important issues that new and expectant parents face. **Ed Arellano, MD**, obstetrician/gynecologist, spoke on infertility; **Richard McMahon, Jr., MD**, family practitioner, spoke on depression and postpartum depression and **Peter Timmermans, MD**, spoke on smoking cessation.

Richard Aster, MD, former Blood Center president and current senior investigator at the Center's Blood Research Institute, was one of three individuals to receive the 1998 American Association of Blood Banks Karl Landsteiner Memorial Award. He was honored for his efforts in advancing the knowledge of platelets, platelet storage and therapy.

Jerome C. Brooks, MD, has been elected a Fellow of the American College of Physicians American Society of Internal Medicine, the society of internists. Doctor Brooks is associated with All Saints Medical Group in Racine.

Paul D. Burstein, MD, who serves on the medical staffs of St. Mary's Hospital of Milwaukee, St. Mary's Hospital Ozaukee and Columbia Hospital, has been promoted to the position of associate clinical professor, department of obstetrics and gynecology, at the Medical College of Wisconsin.

Eight La Salle Clinic physicians are included in the 1999 edition of "The Best Doctors in America." The physicians are **Frank Chybowski, MD,** and **Dirk Fisher, MD,** of La Salle Clinic Urology, Appleton; **Raymon Darling, MD**, and **Mark Faustich, MD,** of La Salle Clinic Obstetrics/Gynecology, Appleton; **Douglas Horan, MD,** of La Salle Clinic Dermatology, Menasha; **Ronald Molony, MD,** of La Salle Clinic Rheumatology, Menasha; **Patrick O'Brien, MD,** of the La Salle Heart and Lung Center, Appleton; and **Ronald Schreiber, MD,** of La Salle Clinic Internal Medicine, Appleton.

Beth Collister, MD, of Mayville, has received the degree of Fellow of the American Academy of Family Physicians. She is associated with the Fond du Lac Regional Clinic.

University of Wisconsin ophthalmologist **Guillermo de Venecia, MD**, was selected as a recipient of the Health Care Hero Award for helping restore the sight of almost 11,000 people in the Philippines over the past 20 years. Doctor de Venecia was one of seven individuals and one organization honored by Rowley-Schlimgen with the Real Heroes Award.

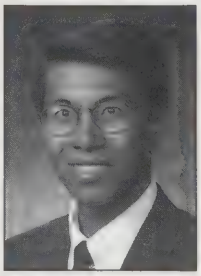
Amy Falkenberg, MD, has joined the medical staff at Scenic Bluffs Community Health Center in Cashton and Norwalk. She earned her medical degree from the University of Wisconsin Medical School in Madison and completed her internship and residency in Marquette, MI.

Douglas Fehrman, MD, orthopedic surgeon at the Sheboygan Clinic, was certified by the American Board of Orthopaedic Surgery. He earned his medical degree at the University of Wisconsin Medical School in Madison and completed an orthopedic surgery residency at the University of Wisconsin Hospitals and Clinics.

Michael Gilman, DO, has been elected president of St. Michael Hospital's medical staff. He earned his medical degree from the College of Osteopathic Medicine, and completed his internship at Northwest General

Who's In The News

Dale Rustad, MD



Delfin Sabido, MD

Leslie Taylor, MD

Zbigniew Trojanowski, MD

Hospital and a residency at Mount Sinai.

Cheryl Goeckermann, MD, has joined Medical Associates of Baraboo specializing in family practice. She earned her medical degree at the Medical College of Wisconsin and completed her residency at the University of Wisconsin.

Terry Hankey, MD, was installed recently as president of the Wisconsin Institute of Family Medicine. He has been a Waupaca family physician since 1972 and is currently on staff with the Chain O'Lakes Family Clinics. He is also Associate Clinical Faculty for the University of Wisconsin-Department of Family Medicine and Practice.

Stephen T. Holthaus, MD, has joined Marshfield Clinic-Lakewoods Family Center in Rice Lake. He received his medical degree from Northwestern University Medical School, Chicago and completed a family practice residency at the University of Minnesota/Fairview-Riverside Family Practice, Minneapolis.

Joining Luther Hospital and Midelfort Clinic are orthopedic surgeon **Charles V. Ihle, MD,** and dermatologist **Joy P. Walker, MD.** Doctor Ihle received his medical degree from the University of Wisconsin-Madison and completed his internship at St. Mary's Hospital, San Francisco. He is currently a director of the State Medical Society. **Doctor Walker** received her medical degree from the University of Minnesota Medical School in Minneapolis and completed her residency at the Medical College of Wisconsin in Milwaukee

Joining the Marshfield Clinic-Lakeland Center are **Lorraine Jackson, MD,** a general internal medicine specialist, and **Delfin Sabido, MD,** an internal medicine specialist. **Doctor Jackson** earned her medical degree from Universidad Technilogica de Santiago in Santo Domingo, Republica Dominicana; clinical training from Medical University of Southern Africa; and internal medicine training from Covenant Hospitals in Milwaukee. She served a residency at Sinai Samaritan Medical Center in Milwaukee and at Tucson Medical Center in Tucson, AZ, and completed a fellowship in infectious diseases at the Medical College of Wisconsin in Milwaukee. **Doctor Sabido** earned his medical degree from the University of the Philippines in Manila, and served his residency at Lincoln Medical and Mental Health Center/New York Medical College in the Bronx, NY.

Rick Jensen, MD, and **Gregory Melby, MD,** have joined the Marshfield Clinic-Eau Claire. **Doctor Jensen,** an otolaryngologist, earned his medical degree from the University of Utah in Salt Lake City and completed his residency at State University of New York Health Science Center in Syracuse. He works in the Eau Claire Center at Sacred Heart Hospital. **Doctor Melby,** a family practice physician, received his medical degree from the University of Wisconsin-Madison and served his residency at Eau Claire Family Medicine Clinic. He works at the Oakwood Center.

Susan Kinast-Porter, MD, a family practice physician at The Monroe Clinic, was recently installed as president of the Wisconsin Academy of Family Physicians. She earned her medical degree from the University of Illinois, Chicago, and completed her internship and residency at St. Mary's Hospital and University of Wisconsin Hospital and Clinics, both in Madison.

John Lehman, DO, the medical director for the Medical Care Facility Nursing Home in Dodgeville, has received a certificate of added qualifications in geriatrics from the American Osteopathic Board of Family Physicians. Doctor Lehman is also associated with the Highland and Montfort Blackhawk Area Health Care clinics.

Family practitioner, **Charles Lonsdorf, MD,** joined the staff of Marshfield Clinic-Lakeland Center, Minocqua. He earned his medical degree from the Medical College of Wisconsin, Milwaukee, and served his residency at the University of Iowa Hospital and Clinics, Iowa City.

Ronald Martins, MD, a pathologist at Waukesha Memorial Hospital, was honored with the Saint George Award by the American Cancer Society – Wisconsin Council. He has been a volunteer

Who's In The News

Joy P. Walker, MD

Roberta Jo Wedl, MD

Ellen Wermuth, MD

Raymond Zastrow, MD

with the American Cancer Society for 12 years and a Wisconsin Division Board member since 1986. He is also responsible for providing cancer education to an increasing number of physicians in the conference.

Thom McGorey, MD, has joined the Lakewood Family Clinic-Johnson Creek. He received his medical degree from Loyola University/Chicago Stritch School of Medicine and completed a residency with the Waukesha Family Residency Program.

John McKenna, MD, spent a part of his vacation biking the Going-To-The Sun Highway, in Western Montana's Glacier National Park with a group of 21 participants and a staff of three. Doctor McKenna is associated with the General Clinic in Antigo.

Emergency medicine specialist, **Richard Mickevicius, MD,** has joined the Rhinelander Regional Medical Group. He earned his medical degree from the Washington University School of Medicine, St. Louis, MO and completed his residency at Detroit Receiving Hospital in Michigan.

David Morris, MD, a La Crosse allergist, has given $500,000 to his alma mater at the University of Wisconsin-Madison for research of respiratory diseases. Doctor Morris is associated with Allergy Associates of La Crosse.

Orthopedic surgeon, **Douglas Palmer, MD,** from Dodgeville Orthopedics has been added to the specialist staff at Mile Bluff Medical Center in Mauston. He earned his medical degree from the Medical College of Milwaukee and completed a residency at the University of Illinois.

Mike Price, MD, will be providing urology outreach services at Lake Tomah Clinic in Tomah. He earned his medical degree from Oregon State University and completed his internship at the Kern Medical Center in Bakersfield, CA, and a fellowship in male infertility at the University of California-Davis in Sacramento, CA.

Elizabeth Raduege, MD, joined the medical practice of William E. Raduege, MD, SC, and is on the medical staff of Howard Young Medical Center in Woodruff. She earned her medical degree from the Medical College of Wisconsin and completed her residency at Duluth Family Practice Residency Program, Duluth.

Pediatrician, **Suzanne Rastorfer, MD,** has joined the Rhinelander Regional Medical Group. She earned her medical degree from the Washington University School of Medicine, St. Louis, MO and completed her residency at the Children's Hospital of Michigan, Detroit. She has also volunteered for Project Head Start, Project Literacy US and Reach Out and Read.

Marshfield Clinic oncologist-hematologist **Douglas Reding, MD,** is the 11th recipient of the prestigious Gwen D. Sebold Fellowship. Besides his clinical practice and research efforts conducted in Marshfield, he also provides outreach cancer services at the Rice Clinic, Stevens Point.

Karla Roth, MD, from Prevea's De Pere clinic, and **Dale Rustad, MD,** from Prevea's Beaumont clinic, are among a group of medical volunteers who travelled to Honduras to bring medical care to the village of Flores.

Family practitioner, **Elizabeth R. Strabel, MD,** joined the Portage Clinic. She earned her medical degree from Louisiana State University School of Medicine and completed her residency at Duke University Medical Center in Durham, NC.

Psychiatrist, **Mahmoud Taman, MD,** joined the Marshfield Clinic-Chippewa Center. He earned his medical degree from Alexandria University Faculty of Science, Alexandria, Egypt and served a residency in psychiatry at Highcroft Hospital, Birmingham, England.

Leslie Taylor, MD, medical director of clinical drug trials at the Dean Foundation in Middleton, is the local lead investigator of the study on St. John's wort, an over-the counter medication that has gained recent popularity as an alternative to expensive treatments for depression. The nationwide study is being sponsored by the National Institutes of Health.

Michael E. Tjarksen, MD, an orthopedic surgeon, joined the Orthopaedic Associates of Waukesha, SC. He earned his medical degree from the University of

Michigan Medical School and completed his residency at Johns Hopkins Hospital in Baltimore, MD. Doctor Tjarksen completed a fellowship in spine surgery at the Rocky Mountain Spine Clinic in Denver, CO. He had additional training in trauma surgery as an AO International fellow in Augsburg, Germany, and also in knee/sports medicine surgery doing a fellowship in Auckland, New Zealand.

Roberta Jo Wedl, MD, has joined the Whitewater Family Practice Clinic. She earned her medical degree at the University of Wisconsin and served her residency at the UW-Madison Family Practice Residency Program.

Sauk Prairie Memorial Hospital has added **Ellen Olson Wermuth, MD,** and **Zbigniew Trojanowski, MD,** to its medical staff. **Doctor Wermuth** is assigned to the River Valley Medical Clinic in Spring Green and earned her medical degree from the UW-Madison. **Doctor Trojanowski** is replacing retiring physician Ihor Galarnyk, MD, at the Plain Medical Clinic.

Lisa Wolf, MD, a family practice physician with All Saints Medical Group in Racine, has been certified as a Diplomate of the American Board of Family Practice.

Raymond C. Zastrow, MD, was named the 1998 CAP Pathologist of the Year by the American Society of Clinical Pathologists/College of American Pathologists at their fall meeting. The award is given to a College leader for outstanding contributions to the field of pathology and to the programs and activities of the CAP.

AMA Awards

The SMS member physicians listed below recently earned the AMA's Physician Recognition Award. They have distinguished themselves and their profession by their commitment to continuing education, and the SMS offers them its congratulations.

Brian J. Bohlmann, MD
Steven H. Cohen, MD
Richard L. Cooley, MD
Michael V. Darnieder, MD
John W. Faber, MD
Dennis J. Maiman, MD
Michael G. Medich, MD
Rodolfo Molina, MD
David C. Olson, MD
Howard J. Palay, MD
David B. Tange, MD
Tosha B. Wetterneck, MD

Them.* Us.

Medical Professional Endorsement	NO	YES
Loss of Wages	$50/Day	$500/Day
On-Residence Business Property Coverage	$2,500	$25,000
Off-Residence Business Property Coverage	$250	$10,000
Electronic Apparatus Coverage	$1,000	$2,500
Computer Records Coverage	NO	$5,000
Umbrella Coverage Available up to $10 Million	NO	YES
Non-Profit Directors and Officers Coverage	NO	YES
Scheduled Property Covered as Valued	NO	YES
Total Loss Cash Settlement Option	NO	YES
Water Back-Up Coverage	NO	YES
Mortgage Renegotiation Coverage	NO	YES
Lock Replacement Coverage	NO	YES
Worldwide Fine Art Coverage	NO	YES

*Based on ISO standards

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In Remembrance

Caimacan, Dumitru T., MD, 73, of Brookfield, died November 1, 1998. He earned his medical degree from Medical College in Bucharest, Romania, and completed his internship at Filantropia, Bucharest and residencies in pediatrics and cardiology at G. Alexandrescu, in Bucharest and a residency in pediatrics at the Misericordia Hospital in New York. Doctor Caimacan was associated with St. Joseph and Mt. Sinai Hospitals in Milwaukee.

Doctor Caimacan is survived by his daughter Adina G. (Evan N.) Zeppos, and his grandchild Cristina Thalia.

Deardorff, William L., MD, 71, of Wauwatosa, died October 20, 1998. He served in the U.S. Navy before attending the University of Wyoming. He earned his medical degree from Northwestern Medical School in Chicago and completed a fellowship in hematology at Emory University in Atlanta, GA. Doctor Deardorff was a Wisconsin Medical School preceptor for 10 years and a staff physician at St. Joseph's, Sinai Samaritan, and Froedtert Memorial Lutheran Hospitals. He was a member of the American College of Physicians and president of the Milwaukee Internist Club. After retiring, he was medical director of Milwaukee Indian Health Board/ Milwaukee Rainbow Community Health Center until 1997.

Doctor Deardorff is survived by his wife Joan; his children, Phil, of San Francisco, CA; Stuart (Robyn), of Elm Grove; Polly (Phil Schneider), of Glen Ellyn, IL; and four grandchildren.

Gilbert, Joseph, MD, 80, of Milwaukee, died August 26, 1998. He earned his medical degree from Marquette University School of Medicine and completed his internship and residency in urology at Milwaukee County General Hospital. Doctor Gilbert served in the U.S. Army as a medical doctor in Panama during World War II and practiced at St. Luke's and Mt. Sinai Hospitals in Milwaukee. He was a member of the 1993 SMS 50 Year Club.

Doctor Gilbert is survived by his cousins, Rose Rotter, Richard Bender and Natalie Soref.

Haug, Stephen L., MD, 64, of La Crosse, died February 18, 1998. He earned his medical degree from Creighton Medical School in Omaha, NE, and served his internship and surgical residency at the Queen of Angels Hospital in Los Angeles. Doctor Haug served in the Indian Division of the United States Public Health Service on the Papago Indian Reservation in Arizona for two years. He served his orthopedic residency at University Hospital in Iowa City, IA, and then went on to practice at the Gundersen Clinic for the past 30 years. Doctor Haug served as medical adviser in the Dominican Republic for four summers, through the Institute for Latin American Concern.

Doctor Haug is survived by his wife Rose Mary; his children, Michaela (Jim) Bisanz, and Ann (Craig) Olund, both of St. Paul, MN; Matt, of Berkeley, CA; George, of La Crosse; and Jim, of Greenville, NC; and six grandchildren.

Hodgson, Norman B., MD, 71, of Wauwatosa, died October 8, 1998. He earned his medical degree from the University of Michigan and completed his residency at University Hospital in Ann Arbor, MI. He served in the U.S. Naval Reserve from 1944 to 1946 and later from 1952 to 1954. Doctor Hodgson was a former chairman of the Urology Department at the Medical College of Wisconsin and a dedicated surgeon who pioneered surgical techniques to remove birth defects of the urinary system. In 1976 he left the department to devote more time to his private practice. He helped to found the Riveredge Nature Center, an environmental education facility in Newburg, WI, and served on occasion as a visiting professor in Africa, Asia and Europe.

Doctor Hodgson is survived by his wife Donna Kathleen; his children, Hilary Hodgson (Miller), of Dallas, TX; Sarah Belenski, of Boulder, CO; Elizabeth Harbison, of Milwaukee, and Jeffrey, of Lawrence, KS.

Johnson, Sture A., MD, 91, of Sun City, AZ, died on October 11, 1998. He earned his medical degree from the University of Oregon in Portland and did postgraduate work at the New York Skin and Cancer Hospital. In 1944 he became an Assistant Professor at the University of Michigan, Ann Arbor, and two years later was appointed Professor and Chief of the Department of Dermatology at the University of Wisconsin Medical School. Doctor Johnson was nationally known in his profession, was the recipient of many awards, recognized by Who's Who in America and Wisconsin Men of Achievement. He was a member of the 1988 SMS 50 Year Club, American Dermatology Association, and fellow of the American College of Physicians. He wrote more than 100 papers dealing with medicine and particularly dermatology and syphilogy.

Doctor Johnson is survived by his wife of 63 years, Geneva.

Matzke, Robert F., MD, 61, of Janesville, died October 20, 1998. After serving with the U.S. Army in Germany for two years, he finished his undergraduate degree and earned his medical degree from the University of Wisconsin School of Medicine. He completed a rotating internship and three years residency in radiology at Akron General Hospital in Akron, OH.

He was associated with Janesville Radiologists, CLT, and was on the staff at Mercy Health Systems in Janesville. Doctor Matzke was a member in several community and professional organizations including the Janesville Morning Rotary, American College of Radiology, and the Radiological Society of North America. He was a board member and president of the Wisconsin Radiology Society and a liaison of the Medicare Advisory Committee.

Doctor Matzke is survived by his wife Susan; his children, Thad, of Atlanta, GA; Andrea (Brad Cownover) Matzke, of Ashland, OR; Kirstin (Patrick) Miller, of Mukwonago; Ronald, of Pueblo, CO; and Robert, of Janesville.

Rahn, Bruno F., MD, 78, of Chippewa Falls, died September 7, 1998. He earned his medical degree from Marquette University in Milwaukee in 1945. Doctor Rahn served in the U.S. Navy until 1948. Upon his discharge, he practiced medicine in Cadott and then in Cornell until 1955, when he opened his own clinic in Chippewa Falls and Lake Wissota. He was a member of the staff at St. Joseph's Hospital and worked there as an emergency room physician until retiring in 1985. He was a 21-year member and past president of the Chippewa Falls School Board, member of the Chippewa Falls Elks Lodge, Rotary Club, and Chippewa County Medical Society. Doctor Rahn was a member of the 1995 SMS 50 Year Club.

Doctor Rahn is survived by his children, Jane (William) Schwandt, of Appleton; Kristine (James) Dimock, Aimee (Don) Roberts and Bruno (Pat) Rahn, Jr., all of Chippewa Falls, and eight grandchildren.

Sanders, Jr., Arthur C., MD, 75, of Wauwatosa, died September 11, 1998. He earned his medical degree from Indiana University Medical School, Bloomington, IN and completed his internship at Milwaukee County General Hospital, where he and a classmate became the hospital's first African American interns. Doctor Sanders served in the U.S. Army during World War II, was on the staff of Doctors Hospital in Milwaukee and served the Milwaukee Central City for over 40 years. He also worked at Milwaukee County Mental Health Complex until his retirement.

Doctor Sanders is survived by his wife Dorothy Nelle; and a son, Arthur III, of Oak Park, IL.

Schmidt, Robert T., MD, 82, of De Pere, died October 23, 1998. He earned his medical degree from Marquette Medical School in 1943 and completed an internship at Milwaukee County Hospital. Doctor Schmidt served in the U.S. Army Medical Corps from 1945-1947. After the service, he completed graduate work at the University of Illinois Eye and Ear Institute, and then returned to Green Bay to practice ophthalmology and otorhinolaryngology with his father. Doctor Schmidt was president of the NE Wisconsin Ophthalmological Society and the Brown County Medical Society; 4th Degree Knights of Columbus, and a member of the 1993 SMS 50 Year Club. He was a life long supporter of the programs of the Boy Scouts of America and charter member of Resurrection Catholic Church, Allouez.

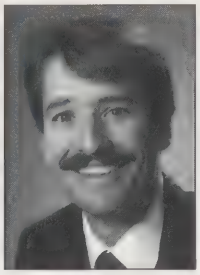
Doctor Schmidt is survived by his wife Jane; his children, Robert, Jr., MD (Carol), of Green Bay; James (Kathleen), of Palm City, FL; Richard (Karin), of Cedarburg; John (Amy), of Peachtree City, GA; Frederic, MD (Mary Beth), of Green Bay; and 15 grandchildren.

Schrock, Jr., Joseph B., MD, 78, of Elkhorn, died on October 12, 1998. He earned his medical degree from Northwestern and interned at Milwaukee Hospital. He then served two years in the Army Medical Corps at the end of World War II. After the service, he completed a surgical residency at Franklin Square Hospital in Baltimore, MD, then went into solo general practice in Sharon, WI until 1968, when he joined the Doctor's Clinic in Elkhorn. He practiced there until his retirement in 1989. He was a member of the Country Gentlemen Barber Shop Chorus, the Elkhorn City Band and Elkhorn Kiwanis Club. Doctor Schrock was a member of the 1995 SMS 50 Year Club.

Doctor Schrock is survived by his wife Helen; his sons, John, of Duluth, MN and Steve, of Sycamore, IL; grandchildren Carla, Peggy, Christopher and Joseph; great-grandchildren Marcus, Mattie, and John.

Tolentino, Mario G., MD, 67, of Greendale, died November 13, 1998. He earned his medical degree from Manila Central University in Manila, Philippines, served his internship in general surgery at Holy Cross Hospital, Salt Lake City, UT, and his residency in colon rectal surgery at Milwaukee County Hospital. Doctor Tolentino was founder and first president of the Filipino American Medical Association in 1966, founder and chairman of the Board, Jose Rizal General MacArthur Memorial Foundation in 1967, and clinical professor of surgery at the Medical College of Wisconsin.

Doctor Tolentino is survived by his wife Janine; his children Ana Maria (David) Bolt, Catherine (Peter) Foss, Christina, Pamela (John) Probst, and Theodore; step-children Susan and Donald Karolewicz; and five grandchildren.



David L. Drury, MD

Guest Editorial

Denied Worker's Compensation Claims: What Physicians Can and Cannot Do

by David L. Drury, MD, MPH and Sridhar V. Vasudevan, MD

"The basic concept upon which the [Workmen's Compensation] statute is founded is that human depreciation is a rightful cost of production, and that the cost of industrial accidents to workmen should be borne by the industry."[1]

Introduction

Very few physicians, whatever their specialty, will be spared the opportunity to be involved with treating or evaluating patients who have sustained a work-related injury.[2,3] Having an understanding of the worker compensation system can serve the injured worker, minimize problems for the treating physician, and increase likelihood of collecting appropriate fees for medical services provided.

One bane of the Worker's Compensation system for physicians is handling a denied claim. Under the Wisconsin Worker's Compensation law, a Worker's Compensation insurance carrier or self-insured employer (insurer) may refuse to pay part or all of a medical bill if there is a dispute regarding the following: 1) reasonableness of fees; 2) necessity of treatment; and/or 3) causation (liability). For each of these disputes, certain procedural steps must be followed and the affected physician has opportunities for recourse.

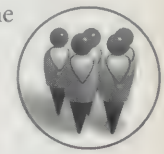
Reasonableness of Fee Dispute

When only "reasonableness of fees" is disputed, the insurer must notify the physician within 60 days after receiving a completed bill. The notice to the physician must include the following:

1) name of the patient and employer;
2) date of the procedure in dispute;
3) amount charged for the procedure;
4) CPT code, ADA code, ICD-9-CM code, DRG code or other certified code for the procedure;
5) formula amount for the procedure and the certified data base from which that amount was determined; and
6) amount of the fee that is in dispute beyond the formula amount.

If the physician believes a fee beyond the formula amount is justified because the disputed case was more difficult than in the usual case, or if the factual information provided in the notice was in error, then the physician should submit a written justification to the insurer. The insurer must then respond within 30 days of receiving the physician's written justification that it accepts the physician's explanation or explain its continuing refusal to pay the fee. The physician may not collect the disputed fee from, or bring an action for collection of the disputed fee against, the employee who received the services for which the fee was charged.

If the physician is dissatisfied with the response, the physician may file a written request to the Wisconsin Worker's Compensation Division. The physician has six months from the date the insurer first refused to pay the disputed fee to file this request. The physician must also include copies of all correspondence related to the fee dispute not only to the Wisconsin Worker's Compensation Division but also to the involved insurer.



Necessity of Treatment Dispute

When an insurer refuses to pay for treatment rendered to an injured worker because it disputes the necessity of medical treatment, written notice to the physician must be given within 60 days of receiving a bill which documents the treatment provided to the worker. The notice to the physician must include the following:

1) name of the patient-employee;
2) name of the employer on the date of injury;
3) date of the treatment and dispute;
4) amount charged for the treatment and the amount in dispute; and

Doctor Drury is an Occupational Medicine Physician, Concentra Medical Centers, Milwaukee. Doctor Vasudevan is Clinical Professor of Physical Medicine and Rehabilitation, Medical College of Wisconsin, Milwaukee. The authors gratefully acknowledge the contributions of Gregory Krohm, Administrator of Wisconsin Worker's Compensation Division; Avis Mueller and Lisa Richard, staff members of Wisconsin Worker's Compensation Division; and the SMS Worker's Compensation Task Force chaired by Michael Reineck, MD.

Table 1. Essential elements to document in work-related injuries

- Name, sex, and age of employee.
- Name of the employer.
- Date and time of accident or if illness, date and time of onset of symptoms and last day of work.
- Description, in the patient's words, as to the work exposure to which the patient attributes the condition for which he is seeking attention.
- Chief complaint, history of present illness, and the appropriate objective physical findings to support the diagnosis.
- Date patient was first seen (and all subsequent examination dates).
- If patient was asked to stay off work, date disability from work began.
- Any comments regarding expected duration of impairment, and anticipated time of healing or recovery.
- The ability of the patient to perform limited or alternate work, and if so, when.
- Any information that the physician believes contributes to the work-relatedness of the injury or illness, either by direct causation, or by work exposure aggravating or accelerating any pre-existing condition(s).*

If the major symptom is that of pain, then the following should be noted:

- Intensity of pain—an attempt to subjectively gauge the pain using a 0-10 scale, where 0 is no pain and 10 is unbearable pain. This should be noted on repeat examinations to have some elements of objectifying the patient's subjective pain experience.
- Location of pain.
- Character and description of the pain (burning, throbbing, aching, shooting or other).
- Associated sensory or sympathetic symptoms—tingling or numbness? coldness? increased sweating?
- Aggravating and relieving factors.
- Response to treatment and the temporal nature of pain.
- Is the pain consistent with underlying anatomical and physiological findings or disease? Is it exaggerated? Is it non-physiological?
- Effects of pain on the patient's psychological functioning—increased anxiety, depression, or withdrawal?
- Episodic pain symptoms, such as with headaches or with soft tissue pain—inquire about frequency and duration of symptoms.
- Effect on patient's daily activities, family, and any relationship to work activities.

In all patients, attempt to examine the following:

- Joint range of motion, both actively and passively.
- Neurological changes such as sensory loss, motor weakness or reflex alterations, radiological findings, and any other electrodiagnostic studies or laboratory abnormalities. With soft tissue symptoms, note any objective swelling or edema, warmth, deformity, atrophy, or consistent and reproducible tenderness.
- Muscular strength of involved or nearby structures.

*Please note that the employee's history may be inaccurate or incomplete. The physician is expected to render an independent medical opinion on causation, and should note information supporting his determination of work-relatedness.

5) reason that the insurer or self-insurer believes the treatment was unnecessary, including the organization and credentials of any person who provides supporting medical documentation.

If the physician believes the treatment was necessary, the physician should explain in writing the diagnosis and why the treatment was necessary to cure and relieve the effects of the injury. The insurer has 30 days from the time the physician sent the explanation to notify the physician whether or not it accepts the physician's explanation. The physician may not collect the disputed fee from, or bring an action for collection of the disputed fee against, the employee who received the services for which the fee was charged.

If the physician is dissatisfied with the insurer's response, the physician may file a written request to the Wisconsin Worker's Compensation Division. The physician has nine months from the date the insurer first refused to pay the disputed fee. The physician must include copies of all correspondence related to the fee dispute not only to the Wisconsin Worker's Compensation Division but also to the involved insurer. A physician may contact the Division for more information at (608) 266-5604 or write to: Medical Cost Dispute Unit, Worker's Compensation Division, P.O. Box 7901, Madison, WI 53707.

Causation (Liability)

The law provides that worker's compensation benefits are payable, "where, at the time of injury, the employee is performing service growing out of and incidental to his (or her) employment."[4] The

employee must prove that the injury happened while engaged in some activity related in some way to employment. Injuries usually **not** considered work-related include:

1) injuries occurring when commuting to and from work, unless the injury occurs on company-owned property;
2) injuries occurring off of the employer premises during a break or lunch hour;
3) injuries resulting from horseplay or fighting if the injured employee was the one who started the horseplay or was the aggressor in the fight; and
4) injuries intentionally self-inflicted.[5]

The treating physician plays an important role in determining "causation" of the injury. A treating physician can limit disputes over causation by meticulous documentation during initial contact with the injured worker (Table 1).[6] However, even the most punctilious evidence provided by the treating physician will not prevent disputes over causation in those cases where there is no identifiable tissue injury. Soft tissue injuries, cumulative trauma disorders (carpal tunnel syndrome, tendinitis), occupational diseases and aggravation of pre-existing conditions frequently lead to differing opinions amongst physicians.

Insurers have a legal right to investigate a medical claim by reviewing appropriate medical information. The insurer may request the employee to submit to an "independent medical examination" performed by a physician selected and paid by the insurer. Insurers who request that an employee submit to a medical examination must send the employee a copy of all reports of the examination that are prepared by the physician (independent medical examiner) immediately upon receiving a copy of the report. Generally, the insurer disputes causation after obtaining a medical opinion which is contrary to the treating physician's opinion. The insurer should send written notice of a dispute of causation to the treating physician, employee, employer and the Wisconsin Worker's Compensation Division.

The treating physician who opines that the medical condition was work-related should request a copy of the independent medical examiner's report from the patient. The treating physician should determine whether the independent medical examiner's report is factual, logical, complete and valid. It is beneficial to review this report with the employee and answer any questions the employee may have regarding the report's contents and subsequent consequences.

If the treating physician disagrees with the independent medical examiner's opinion(s), the patient should be counseled regarding the need to seek legal counsel. The treating physician should also document in writing any discrepancies noted in the independent medical examiner's report, as well as why the independent medical examiner's opinion is in error. The treating physician should make this rebuttal report available to the patient's desired legal counsel.

Patients who have had their worker's compensation benefits inappropriately discontinued often become emotionally distraught and anxious. Patients without health insurance and employment are in a precarious financial position and at risk for developing depression. Reassurance during this stressful time is requisite. The treating physician has an opportunity in this situation to shine as the patient's advocate. If the treating physician lacks experience in dealing with work-relatedness issues, consultation with a more experienced physician is recommended.[7] The nature of causality is indeed complex and the scientific and legal approaches are at times dissimilar.[8] The inexperienced physician also must be wary of each party in the worker's compensation triangle (the employer, the insurer and the worker) trying to coerce the doctor to meet its needs.[9,10] An objective physician who understands causality issues will be able to provide the much needed balanced, logical response to questionable independent medical evaluations.

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Guest Editorial

A Look Back to Look Forward

by Gloria Halverson, MD

A look at where we've been is often helpful in knowing who we are and where we are going. Your State Medical Society has had a Maternal Mortality Committee active for more than 45 years.

The committee was initially formed partly in response to a maternal mortality rate of 382/100,000. The objectives as approved by the Medical Society were "to define trends and examine factors of responsibility and preventability of death to help lower maternal mortality rates through evaluation and dissemination of this information."[1] Education has always been the modus operandi of the committee; examples start shortly after the committee's founding where blood and fibrinogen were found not available in every Wisconsin hospital. Collaboration with the Red Cross corrected this, and short courses were held to update obstetric nurses. Doctor Thomas Leonard, a stalwart in women's health and a committee founding member, reviewed the committee's past work and felt "practically all phases of maternal demise thought to have an increment of preventability as revealed in this study have received some attention in our educational endeavor."[2]

Today, maternal mortality rates have declined drastically to about 7.8/100,000.[3] We are seeing declines thanks to better health, nutrition, more standard prenatal care, improved hospital facilities, advances in obstetrics, and better patient and physician education. With that progress, do we still need a committee? Yes, for one reason - mothers still die. As our founders expressed, "The irreducible minimum can be attained only when the last vestige of preventability is erased. To meet the demands of absolute rather than of relative safety in the process of childbearing there must be continued awareness on the part of all of those involved in maternity care, including the patient, the obstetrician, the nurse and the physician. Continued progress is only possible through knowledge, diligence and dedication."[2] Some things don't change.

The US Department of Health and Human Services has set a goal of 3.3 maternal deaths per 100,000 live births by the year 2000. We have not reached an irreducible minimum yet.

Are we reviewing all the cases we can? Are you reporting the cases as well as you can? No. A pregnancy-associated death is defined by the Centers for Disease Control and Prevention as the death of any woman, from any cause, while she is pregnant or within one calendar year of termination of pregnancy, regardless of the duration and site of pregnancy.[4] Nevertheless, four different studies show that vital statistics miss from 17 percent to 73 percent of the maternal deaths.[5]

There are many reasons for this underreporting. We are still hoping to some day have a maternal mortality check-off on death certificates, something found currently in several other states. Maternal deaths are sometimes missed because pregnancy is not noted in indirect deaths—those involving cocaine use or car accidents, for example. Sometimes the death is significantly post-partum, such as a cardiomyopathy, and again the connection is not made. Patients may die ultimately in a tertiary hospital in which they did not deliver and the cause of death is remote from the initial inciting event. Sometimes we don't hear of cases because physicians are concerned about litigation.

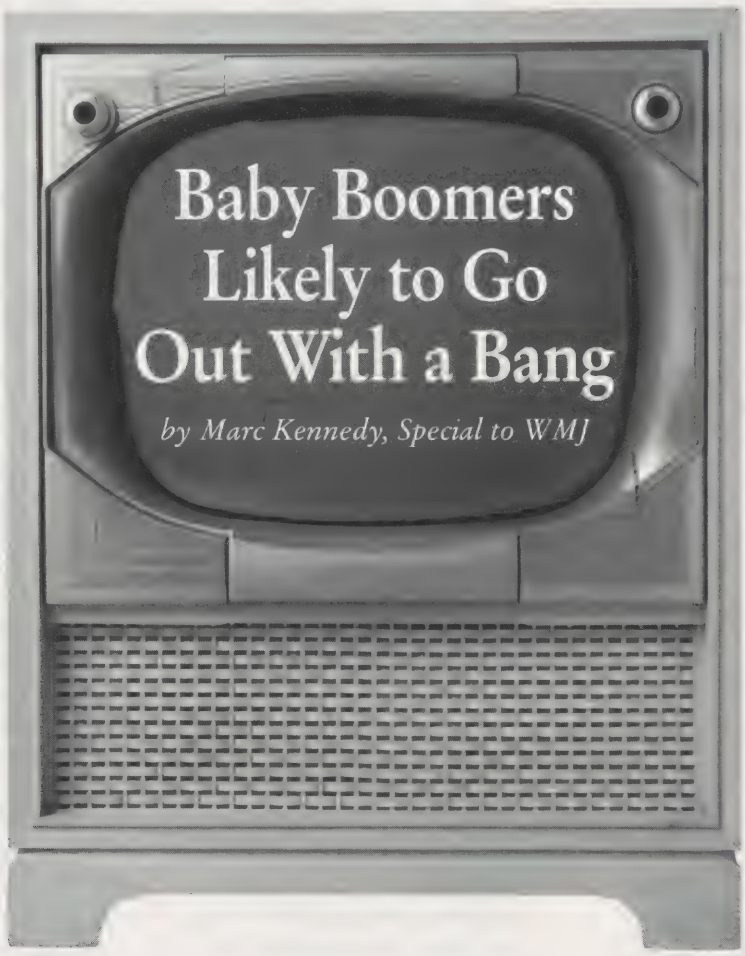
The Maternal Mortality Committee meets for educational purposes only. All discussions regarding patient, doctor and hospitals are anonymous. No minutes are kept. Our activities are protected as confidential and non-discoverable by state peer review statute, and this has never been challenged. To do a thorough job, we must do clinical networking to augment the information on the death certificates. A simple call to any of our committee members would help immensely.

Committee members are Gloria M. Halverson, MD, Waukesha; Perry A. Henderson, MD, Madison; John E. Inman, MD, Monroe; Robert J. Jaeger, MD, Stevens Point; Stanley A. Korducki, MD, Milwaukee; Paul Meier, MD, Marshfield; Bernard Poeschel, MD, Eau Claire; Herbert Sandmire, MD, Green Bay; Walter Schwartz, MD, Brookfield; Dorothy Skye, MD, Rhinelander; Steven D. Stenzel, MD, Eau Claire; E. Howard Theis, MD, Fond du Lac. Eric Jensen is our health policy analyst.

Looking back, the committee sees a firm foundation upon which we continue our educational pursuits. When someone in the future looks back at our work, we hope

Continued on page 11

Doctor Halverson is with WomenCare, Waukesha, WI.



Baby Boomers Likely to Go Out With a Bang

by Marc Kennedy, Special to WMJ

In 2011, the Baby Boomer cohort — roughly those born from 1946 to 1965 — begins to retire officially; or at least its members will start reaching this designated benchmark. The Boomers represent not only the most populous generation in American history, it is also arguably the most educated, wealthiest and healthiest. Though the first two of these variables are interrelated with the third, the latter is perhaps the most significant: While their grandparents were likely to live 10 or 15 years past formal retirement age, Boomers are looking at living two, maybe three decades beyond that particular milestone, thanks to countless medical advances in preventing, diagnosis and treating disease and pursuit of a more healthy lifestyle.

Retirement for the Baby Boomer generation will likely involve more than sitting for a couple of years on the front porch in a rocking chair. As throughout its existence, this cohort will likely continue to make waves — born in the hope of a better post-war world, they helped to fuel the economy as the target of a new brand of consumerism; they cut their teeth by serving in the Peace Corps, fighting in Vietnam and protesting in the streets; they matured in the age of the microchip by embarking on new ventures, developing nascent specialties and discovering innovations inconceivable a generation before.

Time will tell how well retirement suits the Boomers, or in what form it will indeed take. Some may never retire, choosing instead to pursue second, maybe third careers. Some may have to continue to work, if not by desire, by need, depending on the state of Social Security, investments or the collapse or inadequacy thereof. But for better or worse, properly prepared or in desperate straits, the Boomers are coming, and bringing with them a host of potentialities, not the least of which is how well the medical establishment is prepared to care for a massive and prolonged growth in the population of older — albeit healthier – Americans. A population who will likely be

around a long time, and will have the numeric clout to do something about it at the ballot box or with their purchasing power if they don't like what they see. Given the Boomers' historical behavior, they will not likely "go gentle unto that good night."

Medical experts are warning to begin preparations for addressing issues involving the aging of America now, because whether or not the health care system will be ready for it, in unprecedented numbers, the Boomers are coming anyway.

Boomers Riding the Crest of a Big Wave

"This is clearly unprecedented," said Edward Duthie, MD. "The geriatric population has been growing since the turn of century in the US. But this trend will be markedly accelerated for the 1946-65 birth era cohort as we approach 2011. This will be a big wave. Ten years from now or so the numbers will really take off. As they say, 'you ain't seen nothin' yet.'"

Duthie, professor of Medicine and Geriatrics/Gerontology at Medical College of Wisconsin, and Chief of Geriatrics at Froedert Memorial Hospital and the Veterans Administration Hospital, said that while most Americans are aware of the gradual growth of this age group, the indications have been subtle, which will soon change.

"Nobody really knows what's really going to happen, other than there will be many more old people than there have been before," said David Watts, MD, University of Wisconsin Medical School associate professor of Medicine in the Geriatrics and Gerontology section. "We're being lulled into thinking that not much is happening now, since there is little change occurring in the elderly population. There is some talk about the advent of an aging population, but not much is happening so far. So, it's difficult to get people to focus that far ahead."

This has led to a certain amount of complacency about what will actually be required for addressing the needs and the roles of the Boomers as they reach their sixties.

"Our social system and structure has been based on a traditional model in which relatively few people are elderly," continued Watts. "The Social Security and Medicare systems were designed in the 1930s and 1960s respectively, when old people were not that common. We just didn't have large numbers surviving. In 1900, only 4 percent of the population was over 65. Now, it's 12 to 13 percent. And, after 2010, the elderly population will increase rapidly. This will force us to reconsider our social structure. Though it's being discussed now, nothing substantive is being done."

"The geriatric population has been growing since the turn of century in the US. But this trend will be markedly accelerated for the 1946-65 birth era cohort as we approach 2011. . . As they say, 'you ain't seen nothin' yet.' "

–Edward Duthie, MD

In 2000, nearly 20 percent of the population will be age 65 and older. There is some fear that the numbers won't add up when it comes to providing for the needs of this aging generation.

"It appears that we won't have the money now to take care of all the Boomers when they retire and have much left," Watts said. "However, that is based on looking at the older models. I mean, people need to be taken care of, but the nature of that by necessity will change. People in our generation are not looking to enter upon the whole life of leisure that was expected of their parents and grandparents."

One thing Watts can predict is that the retirement age will shift to at least 67.

"This watershed point that has been sacrosanct will be changing," he said. "More will take part-time work. They are already envisioning some bumps in the road. With all the stock market gyrations, they feel they can't count on automatic capital gains to support them. Also, I'm seeing even now that people want to maintain some involvement in the workplace. Full retirement is not for everyone; for some it is boring, and for many, it's not healthy."

Health and the Aging Boomers

"What will the health status be as we age?" asked Watts, who, at 45, is smack in the midst of the Boomer cohort. "We'll probably be living longer. Life expectancy goes up every year. For men it's 73 now; for women, 80. I think a lot of people have just estimated by looking at the disease rate of many conditions and projected them into the future for a much larger population. In this area, predictions are tricky. We just don't know whether they will have the same age specific conditions in the future as people of their age do now."

Duthie added that this uncertainty presents almost limitless medical and social challenges.

"We have to ask ourselves what are the goals of medical therapy," said Duthie. "In this age group, the practice of geriatric medicine will become even more slippery then. It is ludicrous to think about systems of care for a 65-year-old and then extrapolate them for treating a 96-year-old."

He added that the goals of care will likely change for this group.

"Evidence-based medicine will change. There is no data now for many conditions because we just haven't treated enough people of that age. If someone is 90, do you get a mammogram? What is our advice to a 90-year-old about serum cholesterol? How do we counsel these elder patients? We need to have the database to help guide us in practice. One thing we can begin to do now is to start doing modeling."

The wild card in this guessing game is the advent of new medical technology, some of which is a logical progression of advances already underway; but many innovations that will revolutionize medicine 20 years from now are not even on the drawing board right now.

"Today, in so many areas, we have better treatment," said Watts. "For heart disease, people are living much longer. In diabetes, there are so many new medications, and control mechanisms through diet and exercise. In cancer, even the most conservative oncologists are predicting breakthroughs on several fronts with respect to cancer therapies."

Like Watts, Duthie cautions that it is difficult to predict what will happen in 50 years based on the state of medicine and patient response today.

"We've taken current prevalence rates and extrapolate what might happen," Duthie said, "but you have got to take it with a grain of salt, recognizing that it is not a static process. With so many more elderly, we will have so much disability in 2050 even factoring in medical advances to counter this. Everything is not going to be rosy. There will still be a certain burden of chronic illness."

The key here, Duthie says, will be to "find the least restrictive environments and promote the best for the elderly. This involves minimizing morbidity—what's referred to a compression of morbidity—into small number of years. So, by and large this results in better quality of life as long as possible."

> *"Boomers as a group are looking at aging in the face and are doing something about it. People are realizing good old-fashioned health principles: eating in moderation, exercising, limiting tobacco and alcohol consumption, and maintaining a healthy lifestyle."*
> *– David Watts, MD*

But even as therapeutic measures improve for treating the elderly, there will eventually be a point of diminishing returns. Decisions concerning quality of life certainly are happening today. After a course of therapy, a person decides that enough is enough, and will be content to forego additional modalities, particularly if they are invasive, prolonged and painful or uncomfortable.

"Certainly there are patient preference issues as well as biological function issues," said Duthie. "A person might say, 'I'm 85. I've done what I need to do. I don't have the interest in fighting it anymore'."

On the other hand, added Duthie, it is important to look at both biological and chronological age.

"We really don't understand biological age well. Some say it's ridiculous, that never the twain shall meet. But chronology is becoming more interesting because though people are living longer, they are also in better general health. The good message is that the prevalence of chronic illness is declining."

Some of the reasons are well defined, while others remain a mystery.

"We understand blood pressure and risk factors: cigarettes, hypertension. With degenerative joint disease, it's less clear. We are not sure of the pathogenesis, or what people could have done to prevent it. I think we continue to be optimistic about the future health of elder Americans. More are active and independent, focusing on quality of life. But, this isn't going to just happen by accident."

This is where preventive medicine becomes important. The only problem is that for many conditions older people develop, the behavior to prevent illness needs to begin decades earlier.

"Consider osteoporosis," said Duthie. "Peak bone mass occurs between age 20 and 30. To minimize the risk of fracture at 70 or 80, you have to be eating right between ages 15 and 25. This also implies proper childhood health care."

Unfortunately, much of the message to adolescents and teenagers about diet goes unheeded.

"I don't know how to get messages across about nutrition and

tobacco usage effectively to kids," he added, "but it will certainly affect their health and how long they will live decades later."

Prevention a Key Component

Growing medical evidence as well as popular opinion suggests that remaining active mentally and physically will promote positive experiences and lead to a more productive and fulfilling old age; along the lines of the adage "you are only as old as you feel." This seems to fit the Boomer cohort well.

"Boomers as a group are looking at aging in the face and are doing something about it," said Watts. "People are realizing good old-fashioned health principles: eating in moderation, exercising, limiting tobacco and alcohol consumption, and maintaining a healthy lifestyle. This includes nutritional supplements. Of course, there are no magic bullets, but there are some areas of promise, some general improvements around the margins concerning anti-oxidants as well as some vitamins.

"Of course, there are no guarantees; we don't have perfect fairness. Some people will still have to overcome heredity; no matter what they do, they still may develop diabetes. But overall, societal health will improve."

By the same token, there are ethical as well as medical issues to address, and a dearth of data to help light the pathway.

"At this time, we really don't have any reliable strategy that we can say to anyone that doing this or that or taking supplements will prevent certain diseases, for example Alzheimer's," said Watts. "There is some evidence suggesting that non-steroidal anti-inflammatories, and vitamin E may slow it. Does it prevent it? We don't know. There had been some optimism concerning estrogen in helping prevent it in women, but more recent studies have questioned that. So, right now we don't have a reliable strategy.

"But we may be on the verge of asking the right questions," Watts continued. "A new generation of these medical answers may be just around the corner, less toxic, but more expensive. This in turn will raise more questions: Is it worth it over many years to take medication that may not necessarily work? Should you take them if you are genetically predisposed, even though you don't know whether or not you would actually contract a disease?"

Watts added that cost enters into the equation. Will such medications be readily available, or will only the well-to-do be able to afford such preventative measures? Such a have and have-not situation could pose a weighty ethical dilemma in the not too distant future, and a public health concern as well, when factoring in the size of the Boomer cohort.

Who Will Treat Them?

Another factor in caring for Boomers involves a basic equation. Will there be enough physicians trained in gerontology and geriatrics to care for this population? According to Duthie, The Medical College of Wisconsin is concerned and is doing something about it.

"I've been charged to help form programs at the medical student and resident levels to give them the opportunity to work in frail-elderly experiences, to learn how to do a better job in caring for these people when they get in practice. It is the frail-elderly that require special treatment. With people that are in good health, general practice and internal medicine physicians deal well for those older patients. But it is the frail-elderly that have the most specialized needs. We need to know how to develop a system of health care to promote optimal outcomes for these patients. It is part and parcel with primary care physicians' practice, unless we end up developing a whole different system of care for these patients. How the dice are going to roll, no one knows.

"Perhaps we will see a whole new approach, as developed with pediatrics. But only two things can happen: deliver care via the primary care system or develop a new one."

What will happen is anyone's guess. Both Duthie and Watts are guardedly optimistic about the fate and promise of the Baby Boomers as they begin to find themselves farther removed from the status of the cherubic New Year's symbol to that of the hour-glass wielding Father Time.

"Boomers have done lots of things late," said Watts. "Marriage, children, finishing college later, starting to save money later. My theory is that as a lot of Boomers prepare for aging they will come around to it more slowly than they should. They will accommodate aging in their own way. The generation that brought in communes and other alternative ways of doing things will likely introduce new systems and methods that will become more common, most likely in living and social arrangements, financial and social, in the workplace, concerning their own physician and mental health. Almost by necessity, Boomers will need to take innovative and unusual approaches to their own aging and accompanying aging issues that confront the entire generation."

Growing Old Doesn't Mean Growing Ill

by Marc Kennedy

In 1900, only one in 25 Americans was age 65 and older. By the year 2000, the number will jump to nearly one in every five Americans.

"There are so many issues that this change has affected, and will continue to—all aspects of life and society from biology, social relationships, work, communities," said psychologist Carol Ryff, PhD. Ryff, who is professor of psychology at the University of Wisconsin-Madison and director of the university's Institute on Aging, said that this opens opportunities for tremendous contributions by elder Americans in the coming years, as well as potential for serious burdens on health care and social service sectors.

"With the gains in longevity," she said, "many people today can expect to live almost a quarter of their lives in retirement, and they are generally healthier, better educated and living longer than ever before.

"When we think about issues and needs, it's important to focus on problems and concerns as well as potential. Just as we need to address Alzheimer's, osteoporosis, Parkinson's disease, visual problems, and various other types of chronic health needs and the general care for people with these afflictions, we also should focus on talent, the potential and the vitality of the aging population. We are not trying to equate being old with being ill. Part of growing old is being well, too."

Maintaining Health

How well the Boomers will handle their elder years will depend on myriad variables. John W. Rowe, MD, and Robert L. Kahn, PhD, describe these issues in an article in a 1997 edition of *The Gerontologist,* (Vol. 37, No. 4), entitled "Successful Aging." Successful aging has three main components: "low probability of disease and disease-related disability, high cognitive and physical functional capacity, and active engagement with life."

> *"With the gains in longevity, many people today can expect to live almost a quarter of their lives in retirement, and they are generally healthier, better educated and living longer than ever before."*
>
> *– Carol Ryff, PhD*

While genetics plays a role in disease and disability as people age, Rowe and Kahn propose that how these are presented in an elderly population is modifiable to a certain extent. They cite several studies, concluding that they "reveal three consistent findings:

"First, intrinsic factors alone, while highly significant, do not dominate the determination of risk in advancing age. Extrinsic environmental factors, including elements of lifestyle, play a very important role in determining risk for disease.

"Second, with advancing age the relative contribution of genetic factors decreases and the force of nongenetic factors increases.

"Third, usual aging characteristics are modifiable. These findings underline the importance of environmental and behavioral factors in determining the risk of disease last in life."

The article continues to outline the other factors, including maintaining cognitive function and what they refer to as continued engagement with life. For cognitive function, they cited "several cross-sectional studies identifying education as a major protective factor against reductions in cognitive function," and also mention another that points to "a surprising finding...that the amount of strenuous physical activity at and around the home was an important predictor of maintaining cognitive function."

Kahn and Rowe also point to evidence that "cognitive losses among healthy older people are reversible by means of training." Referring to this capacity for positive change as "plasticity," the authors indicate that "appropriate interventions can often bring older people back to or above some earlier level of function."

The engagement with life aspect involves maintaining interpersonal relations and productive activities. Numerous studies showed that isolation is a risk factor for determining health and that a social support system — friends, family, colleagues — can

positively affect the elderly as well. The two elements appear to go hand in hand, according to the American Changing Lives (ACL) study. Rowe and Kahn wrote:

"...contrary to the stereotype of unproductive old age, most older people make productive contributions of some kind, more as informal help-giving and unpaid volunteer work than paid employment. . . Among those aged 60 or more, 39 percent reported at least 1,500 hours of productive activity during the preceding year; 41 percent reported 500 to 1,499 hours and 18 percent reported one to 499 hours."

The authors concluded that three elements can predict productivity in old age: functional capacity, education and self-efficacy, which appear to be interrelated with the other two major aspects of successful aging, avoidance of disease and disability, and high physical and cognitive function. In the face of this evidence, how will the Boomers shape up as they enter their golden years, and how may their extended lives enhance, burden or otherwise affect the rest of society?

"Being involved in meaningful pursuits for those now living a couple of decades past retirement is what that is supposed to be about," said Ryff. "Being actively engaged in life is what keeps people well."

The prospect of having a huge number of experienced older Americans willing to contribute, perhaps in a less than full-time capacity, puts the onus on the employers and managers on how to best tap into this burgeoning labor force.

"We have to begin anticipating how the workforce will be comprised in the future," said Ryff, "and how educational institutions might play roles in the quality of life for us in later years. For example, where elders can get training in other disciplines, and how they might contribute to education in their later years as instructors.

"I think a critical theme is finding ways for aging populations to contribute to society, which needs to be as much of a priority as making sure they have adequate health care available," Ryff added.

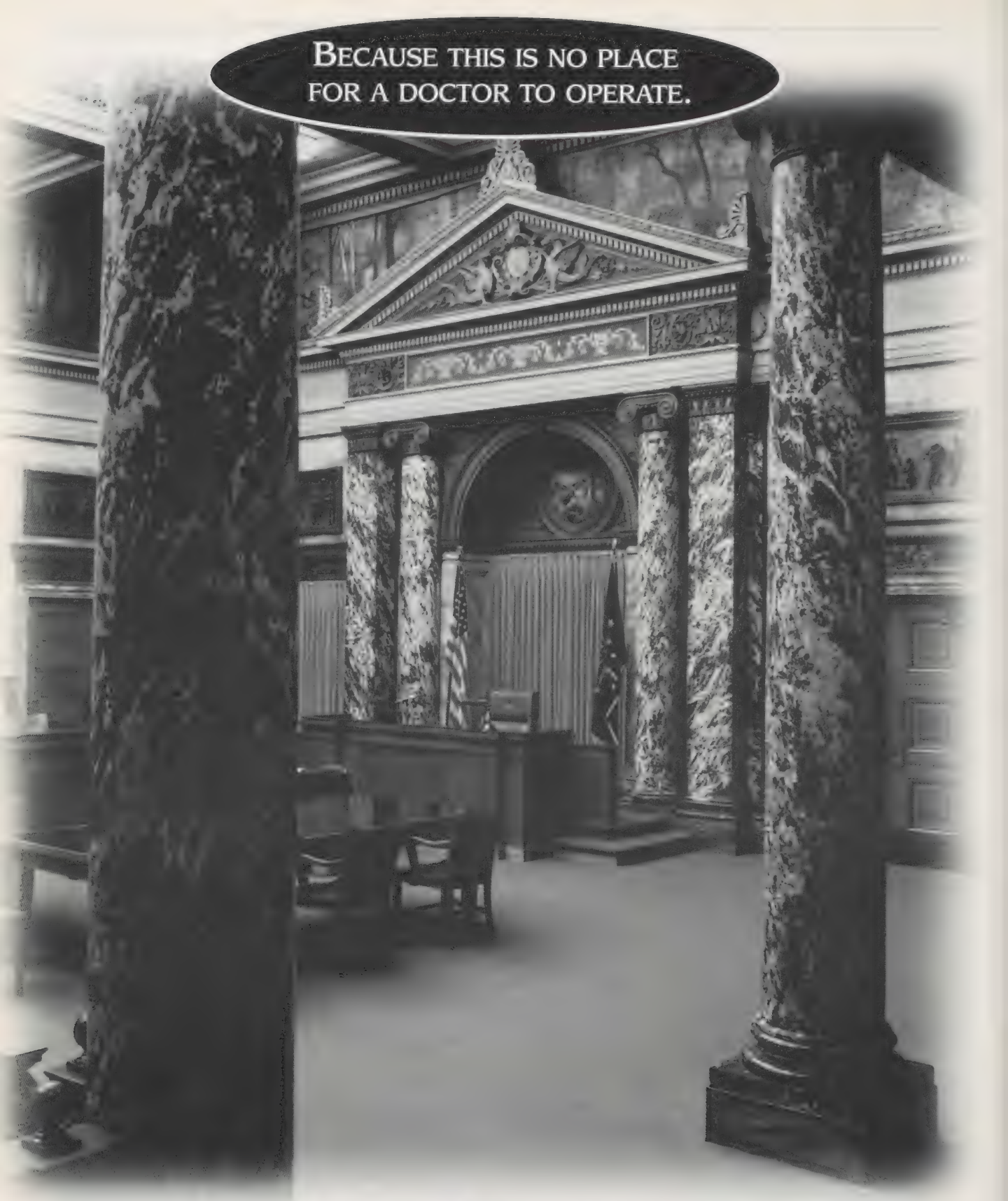
"Ten or 20 years ago, this wouldn't have come up. Now this has become the focus of interests for many, including the aging institute here," Ryff said. "We've got an association of 100 faculty affiliates in 45 different departments in 12 different schools focusing on various aspects of aging: biomedical, psychosocial, environmental, demographic, economic, among others. We are trying to then translate as much of this knowledge into training and education programs in the aging field. We're preparing a whole new generation of professionals with expertise in aging."

Based on the size and longevity of the Boomer cohort, such research will have wide applications.

These demographic changes have also broadened the research focus of the institute, Ryff says. Now in addition to studies on age-related disease, such as osteoporosis, Alzheimer's, Parkinson's and vision and hearing loss, it is also beginning to look at the other side of the equation: What keeps older people vibrant, healthy and able to realize their potential?

"A lot of what we're doing in the institute today focuses on health promotion and prevention," Ryff said. "What we're doing is moving beyond feel-good perspectives about 'growing old gracefully' to the science of positive aging.

"For the media and the public it's important to underscore the dialectic between the positive and negative," Ryff concluded. "We need to look at the transformation of aging with the advent of medical and scientific advances that help us lead longer and more productive lives, which is all so exciting. But at the same time, this exists besides the tragedies of those with Alzheimer's and other chronic diseases of the elderly."



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The World Wide Web: What Physicians Should Know When Patients are Surfing the Net

by Lynn Sherman, SMS Policy Analyst

Forty percent of all Internet searches are done to find medical information, according to a recent *USA TODAY* survey. And with easy access to computers and the World Wide Web (web), more and more physicians are being approached by patients with health information they have found while surfing the Internet.

It's not just the younger generation who has access to or interest in the Internet. Increasingly, retirees are going on-line for answers to their medical questions. Classes are even targeted at older adults to teach them how to "surf."

The knowledge they find can be empowering, especially for those Baby Boomers who want to take a greater role in their own medical care. However, the Internet is also a large source of unpoliced and potentially dangerous health information.

"With over 10 million sources on the Internet, consumer health information and patient education programs are the most rapidly expanding segment of the World Wide Web," said John H. Renner, MD, a family practice physician and President of the National Council for Reliable Health Care Information. "The Internet is here to stay and will change our communication techniques as surely as the telephone did. As a health care professional, steering your public to accurate information is a significant obligation."

To help meet that obligation, physicians can take a number of steps to help patients find the most accurate and appropriate health information.

Some Suggestions

Physicians are highly encouraged to get acquainted with the information available on-line. But even if you are not familiar with the Internet, there are many ways to help inquiring patients.

- **Learn where patients found the information.** Ask them to print out the page or provide the URL (web address) so you can more accurately evaluate the material. Attach the information to the patient's record so there can be follow-up at a subsequent visit. If the information is especially helpful for a particular illness or injury, share it with other patients or with office staff so that others can benefit too.
- **Be proactive—provide a listing of good on-line health sites.** This will give the patient a starting point and help them avoid less reputable sites. "Healthfinder (www.healthfinder.gov/), the US Department of Health and Human Service's site for health information, is an excellent source of accurate information," states Dr. Renner. Other reliable sites include the American Medical Association's site (www.ama-assn.org), the Centers for Disease Control and Prevention site (www.cdc.gov) and InteliHealth, run by the Johns Hopkins University Hospital and Health System (www.intelihealth.com).

Emedicine.com, a new site touted as one of the best on-line medical resources available, contains 8,000 pages of health information written and edited by over 400 physicians. WISMED (www.wismed.com), the web site for the State Medical Society of Wisconsin, features a patient advocacy section, as well as links to other health-related sites.

If a patient seeks a medically-related article, Medline, a database of abstracts from the National Institutes of Health's National Library of Medicine, is an excellent resource. Medline is accessible through PubMed (www.ncbi.nlm.nih.gov/PubMed).

Information Evaluation

Regardless of your recommendations though, patients surfing the net will undoubtedly find sources absent from your list. Urge them to consider these criteria when evaluating the information they find.

1) Credibility

- **What is the source of the information?** Who is the author, what institution or organization

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are they affiliated with, what are their credentials?

Remind patients that the Internet is a wonderful source for good medical information, but it also contains a great deal of misinformation or worse, fraudulent medical information. Everybody and anybody can publish information or pose as an authority on the Internet.

"Patients come to me with information they found on the Web on a regular basis," said Kim Hetsko, MD, Madison. "I remind them that sometimes you get what you pay for on the Internet."

- **What kind of references are given?** If the site refers to the CDC, NIH or a respected medical institution or has a review board with names that are respected in a particular field of medicine, the information is probably more reliable.
- **Are suspect messages given?** Does the site author encourage distrust of physicians, the medical or public health system? If so, the site should probably be avoided.

2) Accuracy

- **How often is the information updated?** Some sites are updated daily while others sit untouched by their authors for months.
- **Are the claims based on sound scientific research?** Are there unsubstantiated claims or misleading material (e.g., testimonials given to dramatize a cure)? Better sites will make reference to peer-reviewed journals or to respected individuals or institutions.
- **Is a product or service being sold? Could the site be promoting a fraudulent health service or product?** Remember that if a health product or service sounds too good to be true, it probably is! There are several good Web sites that will help expose this kind of information including the National Council Against Health Fraud (www.ncahf.org) or Doctor Stephen Barrett's Quackwatch site (www.quackwatch.com).

3) Usefulness

- **How pertinent is the information to the patient's particular illness?** The specifics of the patient's illness, their age and other medical conditions, need to be considered.
- **Is the health information provided in language that the patient can comprehend?** Highly technical explanations may be helpful for a physician but may cause confusion regarding the treatment for the patient.

Remember that there is so much health information on the Internet that you may not always be able to decipher the good sites from the bad. Several national task forces are actively trying to develop a consensus about the best ways to evaluate Internet health information, but to date, they have not agreed on criteria. Experts do agree, however, that providing patients with general suggestions and showing them that physicians are interested in the material they bring and questions they have will promote better physician-patient communication and could even improve the patient's overall satisfaction with the health care system.

Internet Quick Reference for Patient Information

American Medical Association (www.ama-assn.org), includes quality patient education information on the JAMA Information Centers. Topics include AIDS/HIV, asthma, migraine and women's health.

Centers for Disease Control and Prevention (www.cdc.gov), provides searchable patient health information on hundreds of topics, from AIDS and airbags to yellow fever and zoonotic diseases.

Healthfinder (www.healthfinder.gov), developed by the U.S. Department of Health and Human Services in collaboration with other federal agencies, is a gateway consumer health information site.

Intelihealth (www.intelihealth.com), a joint venture between Aetna US Health and Johns Hopkins University and Health System, provides general medical advice and contains a drug index; content supplied by NIH and National Health Council.

Mayo Clinic (www.mayohealth.org), directed by a team of physicians, contains centers that focus on different topics (Alzheimer's disease, heart disease, etc.) The "Ask Mayo" section allows the patient to e-mail a medical question directly to a team of Mayo Clinic physicians.

PubMed (www.hcbi.nlm.nih.gov/PubMed), provides access to Medline, a database of abstracts from the NIH National Library of Medicine. Abstracts cover more than 9 million articles from 3,800 medical journals.

Health On the Net Foundation (www.hon.ch) headquartered in Geneva, Switzerland, the Foundation monitors medical Web sites to make sure they are providing credible, accurate information.

WISMED (www.wismed.com), the State Medical Society of Wisconsin's web site, provides links to medical references, government agencies and medically-related societies and associations. *Medigram, WMJ,* and information on patient advocacy programs are available.

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Stress and Hypertension

Shveta Kulkarni, Irene O'Farrell, BA, Madhavi Erasi, MD, and Mahendr S. Kochar, MD

ABSTRACT

Stress can cause hypertension through repeated blood pressure elevations as well as by stimulation of the nervous system to produce large amounts of vasoconstricting hormones that increase blood pressure. Factors affecting blood pressure through stress include white coat hypertension, job strain, race, social environment, and emotional distress. Furthermore, when one risk factor is coupled with other stress producing factors, the effect on blood pressure is multiplied. Overall, studies show that stress does not directly cause hypertension, but can have an effect on its development. A variety of non-pharmacologic treatments to manage stress have been found effective in reducing blood pressure and development of hypertension, examples of which are meditation, acupressure, biofeedback and music therapy.

Recent results from the National Health and Nutrition Examination Survey[1] indicate that 50 million American adults have hypertension (defined to be a systolic blood pressure of greater than 139 mm Hg or a diastolic blood pressure of greater than 89 mm Hg). In 95% of these cases, the cause of hypertension is unknown and they are categorized as "essential" hypertension. Although a single cause may not be identified, the general consensus is that various factors contribute to blood pressure elevation in essential hypertension. In these days of 70 hour work weeks, pagers, fax machines, and endless committee meetings, stress has become a prevalent part of people's lives; therefore the effect of stress on blood pressure is of increasing relevance and importance. Although stress may not directly cause hypertension, it can lead to repeated blood pressure elevations, which eventually may lead to hypertension. In this article we explore how stress can cause hypertension and what can be done about it.

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HOW STRESS AFFECTS BLOOD PRESSURE

Stress is defined as excessive psychological or physical demands and the inability to cope with them. It stimulates the sympathetic nervous system to produce excessive amounts of catecholamines, which increase cardiac output and cause vasoconstriction. Both lead to a rise in blood pressure for an hour or more.[2] Evidence also exists that stress increases serum cortisol concentration, which can also raise blood pressure.[3] The hypertensive patients tend toward repressed anger, slight depression and anxiety,[4] and show a tendency toward physiological overreaction to stress.[5]

WHITE COAT HYPERTENSION

One interesting phenomenon is "white coat hypertension." This condition is described as a significant difference between the office blood pressure (OBP) and ambulatory blood pressure (ABP). In a study by Trenkwalder et al.,[6] 90% of elderly, untreated hypertensive subjects demonstrated a "white coat" effect for both systolic and diastolic measurements and 15-25% of borderline and mild-to-moderate hypertensive subjects demonstrated the phenomenon. It is possible that a significant number of patients are being diagnosed with hypertension when, in fact, they exhibit elevated blood pressures only in "white coat" situations. Another interesting point is that most white coat hypertensives do not exhibit as much elevation in blood pressure when blood pressure is measured by a nurse or technician as opposed to a physician.[7] This further attests to the influence of psychological factors and that highly specific differentiation made by the brain produces marked differences in blood pressure level.

JOB STRAIN

An association between job strain and hypertension has been indicated in numerous studies. Ambulatory blood pressure was examined in a population based-sample of employed men in northern Italy.[8] Among the normotensive men, the highest mean for systolic blood pressure was found in the high strain group, and progressively lower

values were observed in the passive, active, and low-strain categories. This indicates that job strain affects blood pressure in the population.

Women, especially during pregnancy, also demonstrate that stressful jobs induce hypertension.[9] A relationship was also detected between job complexity and latitude in making decisions. Among women with lower status jobs, rising blood pressure was found in those having low decision latitude and low complexity jobs. In women with higher status jobs, a correlation was found between excessive job strain and elevated blood pressure.

In a study performed by Landsbergis et al,[10] full-time male employees showed that all formulation of job strain exhibited significant associations with systolic blood pressure at work. More restrictive factors such as organizational influence, task-level-decision latitude variable, and social support produced stronger effects.

Blood pressure reactivity to occupational stressful life events support the concept of loss of control being associated with higher pressure. The anticipation of job loss on psychological distress and worksite blood pressure was studied at a major New York City brokerage firm undergoing massive layoffs. Psychological distress was significantly increased among those employees reporting possible or definite layoff or job change and/or difficulty in obtaining a comparable job. Employees demonstrated an average increase of 5 mm Hg in blood pressure when their company was sold to another company.[11]

FAMILY HISTORY

Gerin et al. examined how parental history of hypertension delayed the recovery of blood pressure after mental stress in college undergraduates. Reactivity testing (difference between baseline and during task-levels) and recovery testing (difference between baseline and post-stress levels) was done on all the subjects. The parental history of hypertension had a significant effect on systolic blood pressure and a marginal effect on diastolic blood pressure during the recovery stage. Family history of hypertension may affect the duration of the blood pressure response to an acute stressor more than the magnitude of the response.[12]

Increased response to physical and mental stress in men with hypertensive parents is another area of concern. Blood pressure responses were studied at age 31 and again five years later in a group of normotensive men with positive family histories and negative family histories. The five-year follow up was designed to determine any blood pressure response. Following the conclusion of the study, one saw that during the mental stress test, the blood pressure response was significantly higher in subjects with positive rather than negative family histories.[13]

PREGNANCY

Stress level was analyzed and comparisons made between women with and without pregnancy induced hypertension. Weight, appetite, activity and mood experiences were studied at four sequential time intervals during pregnancy. Pregnancy-induced hypertension was found to correlate with (a) unmet maternal dependency needs, (b) the imposition of the childbearing during adolescence, and (c) maternal emotional distress, which can be regarded as stress factors contributing to hypertension.[14]

Floyd et al. studied the effect of pregnant women's stress on the baby's blood pressure. Fifty women in their fifth to seventh month of pregnancy were studied in clinics in a large metropolitan county in the southeast. After delivery, patient charts were abstracted to determine the presence of hypertension in the babies. Women experiencing a high level of stress were at increased risk of complications of pregnancy, and the blood pressure was more often elevated in the offspring.[15]

RACE AND SOCIAL ENVIRONMENT

Stress resulting from racism and lower socioeconomic standing also predisposes to hypertension.[16] Individuals who experience repeated stressful events are at risk for developing psychological illnesses. African Americans are an ethnic group that experience many stressors due to racism and discrimination. Their low position in society and extreme difficulty to gain higher status leads to a variety of stressors, such as unemployment, bad housing in high crime areas, and minimal education, that can lead to hypertension. Hypertension is almost twice as prevalent among American blacks as among whites. Heightened sympathetic nervous system activity, in part secondary to increased levels of socioeconomic stress, is hypothesized as playing a role.[17]

Black urban adolescents seem to have an increased risk of developing essential hypertension compared to any other group of this age. Evidence that stress plays a role in causing hypertension in this group comes from recent studies of social information processing, emotion, and blood pressure in these youths. Not only was the average blood pressure higher in black children, it also increased at a faster rate, suggesting that mechanisms which predispose blacks to hypertension

may already be functioning in childhood. Furthermore, black students who were significantly anxious or tense and suppressed their feelings were at increased risk for essential hypertension. A faulty social "schema" or "working model" was thought to be a contributing factor to stress that would later cause persistent high blood pressure readings. Urbanization of the black population results in a significant increase of hypertension and its complications.[18]

Anxiety and depression have been shown to result in acute autonomic arousal and BP reactivity; however, depressive symptoms and anxiety symptoms defer by race and ethnicity in the two sexes.[4] In addition, alcohol intake rose with increasing levels of depressive symptoms, but the increase was greater in blacks than in whites.

ANXIETY, DEPRESSION, AND EMOTIONAL DISTRESS

Feelings of exhaustion, frustration, and despondency are elements of stress that can activate pituitary and adrenocortical hormones, resulting in high blood pressure and hypertension. Exhaustion and emotional distress are associated with a hormonal pattern consisting of an increased cortisol response to adrenocorticotropin stimulation. This neuroendocrine pattern denotes a defeat type of reaction to stress, and distinguishes hypertensives from normotensives. Results suggest that the variance shared by feeling of exhaustion and the distribution of hormones could elucidate mechanisms by which stress exerts its influence towards increased risk of hypertension.[3]

In order to determine a causal relationship between depression and/or anxiety and hypertension, Jones et al. performed a longitudinal study. They examined 2,992 normotensive subjects. The subjects were administered General Well-Being Schedules for anxiety vs. relaxation and cheerfulness vs. depression. In follow-up visits with the subjects, blood pressure readings were obtained as well as information regarding prescription of antihypertensives. The study found that for both whites and blacks, aged 25 to 64 years, the incidence rate of hypertension was higher in persons with high or intermediate anxiety symptom scores than in persons with low anxiety symptom scores. Similarly, for whites aged 45 to 64 years and blacks aged 25 to 64 years, the incidence rate of hypertension was higher in the persons who had high depression symptom scores than in those who had low symptom scores. These findings suggest that the preexisting psychological conditions of anxiety and depression contribute to the subsequent development of hypertension.[19]

Boutelle et al.[20] pointed out that research as early as 1939 hypothesized that one route to essential hypertension was through the inhibition of anger, which presumably produces heightened arousal of the sympathetic nervous system. They attempted to study this hypothesis further and administered various self-report inventories to hypertensive and normotensive subjects. They found that a low threshold for anger, guilt, and aggression are associated with hypertension. While this research appears to support early theories, the authors conceded that the data do not provide evidence of a causal relationship between various emotions and hypertension as hypertension could have caused the difference in emotional response or emotions could have caused the difference in blood pressure readings; on the other hand, both differences could have been caused by another factor.

STRESS MANAGEMENT

As stress appears to be a contributing factor in hypertension, methods of treating hypertension must also consider treatment of stress, since addressing the underlying factors may help to control hypertension. None of the following studies suggest that drug therapy of hypertension be abandoned, however, all offer support for non-drug therapies in the treatment of hypertension.

In a study by Stewart et al., patients with chronic hypertension were found to have lower health perceptions than patients with no chronic illness. This health perception measure was based on an overall rating of current health. While this overall rating may be based on facts, the authors aim was to show that patients' perceptions of their own physical functioning and well-being were important in treatment. The authors suggested that by directly confronting negative perceptions, physicians may be able to increase effectiveness of medical treatment.[21]

Lately, more attention has been paid to the effect of music on health. Steelman conducted a study of the effect of tranquil music on anxiety and blood pressure in day surgery patients. All patients had local anesthetic or a regional block while undergoing hand or wrist surgery. The State-Trait Anxiety Inventory (STAI) was administered pre-and post-operatively. Blood pressure readings were taken pre and post operatively. The experimental group listened to tranquil music through headphones during the intraoperative period while the control group received normal nursing care and verbal distraction. Data showed that mean preoperative diastolic blood pressure of the control group was lower than that of the experimental

group and the control group had no significant differences between pre and postoperative blood pressure readings. Anxiety levels decreased in both groups postoperatively. Additionally, music appeared to reduce blood pressure.[22] These findings could be extended beyond the surgical suite to help reduce every-day stressors. Further study on the effectiveness of music therapy in these situations would give insight into the possible benefits for hypertensive patients.

A study by Pender examined the effect of progressive muscle relaxation (PMR) training on the anxiety and health locus of control (degree to which individuals perceive their health status as a consequence of their own actions or unrelated to their own behavior) in hypertensive patients. The hypothesis was that if anxiety increases and the locus of control is external, physiological manifestations such as blood pressure increase can occur. By controlling the physiological symptoms through relaxation, it may be possible to alter anxiety levels and the locus of control. The author found that anxiety levels and locus of control differed significantly between experimental (3 PMR training sessions and at-home practice) and control groups (no training). Those subjects who had received PMR training reported less anxiety and a more internal health locus of control. An increased anxiety level correlated with an increased systolic blood pressure. The author concludes that PMR training may be effective in controlling stress, which could, in turn, reduce blood pressure.[23]

A trial of stress reduction for hypertension was conducted in a group of older African Americans. The purpose was to test the short-term efficacy of stress-reduction in treatment of hypertension, focusing particularly on psychological stress. Mental and physical stress-reduction approaches–the Transcendental Meditation technique and progressive muscle relaxation–were compared with a lifestyle modification education and with each other. Effects of stress reduction on blood pressure were positive, and generalized to both sexes and diverse risk factor subgroups. The effects were also significantly greater in the Transcendental Meditation treatment group (mental stress reduction).[24]

There are many as yet unproven alternative and complementary therapies for high blood pressure focusing on relaxation techniques. Acupressure or massage can help lower blood pressure by promoting relaxation. Both therapies employ touch and manipulation to reduce tension in the body. Acupuncture coupled with herbal and massage therapy is also recommended in treating high blood pressure. Chrysanthemum flower, eucommia bark and prunella are herbs that are prescribed in China for hypertension. Other herbal therapies, such as hawthorn, garlic and valerian are recommended as relaxants for people experiencing undue stress. Biofeedback, meditation, and hypnotherapy call on the mind to relax the body and help lower blood pressure. Positive imagery may work well for many people.[25]

While antihypertensives definitely lower blood pressure, the complementary effects of non-drug therapies cannot be dismissed. If the non-drug therapies indeed reduce blood pressure, they would be preferred as they reduce the possibility of adverse drug reactions and prescription costs.

CONCLUSION

Based on research done on the topic of stress and hypertension, it is still difficult to prove stress as a direct cause of essential hypertension. Although there is a definite correlation between extreme anxiety and elevated blood pressure, no evidence exists showing that stress itself causes hypertension. Rather, repeated elevations of blood pressure resulting from stress during a person's life seems more plausible as a path towards hypertension. Furthermore, when stress is coupled with other risk factors for high blood pressure, such as alcohol intake, smoking, and sedentary lifestyle, the effect might multiply and hypertension becomes an ominous possibility. Stress can most appropriately be considered a component for high blood pressure, and therefore it is advisable that stress be avoided or at least reduced whenever possible.

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Mammography Facility Trends Across Wisconsin

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ABSTRACT

This paper summarizes the survey results obtained from the University of Wisconsin Mammography Update CME conference. This survey queried participants regarding the breast imaging services they offer. From 147 questionnaires distributed, 110 were returned. The majority of sites were in Wisconsin and were hospital based (57%). Thirty three percent were in clinic settings and 11 percent were "other" settings–clinics specializing in women's health and breast imaging. The survey addressed coordinated breast physical examinations, prior mammographic studies, self-referral, communication of mammographic results, patient call-backs for additional studies, breast compression, breast implants, scheduling, definitions of screening and diagnostic mammograms, presence of an on-site radiologist, and time allotted for the examinations. This survey attempted to gather useful information about the trends and practices of multiple diverse mammography facilities across Wisconsin and in surrounding states.

INTRODUCTION

Mammography has become a vital tool in the fight against breast cancer. Public health initiatives along with patient education have resulted in a marked increase in the number of women participating in mammography programs. This rapid growth has created the need for increased breast imaging services. This survey is an attempt to determine what services are provided in Wisconsin and how these services are provided. Breast imaging and intervention will continue to expand and will undergo major changes in the next decade.

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METHODS

The University of Wisconsin Mammography Department holds a biennial two-day CME Mammography Update course with national and local speakers who address issues pertinent to breast health. A questionnaire covering issues pertinent to breast imaging sites was given to each participant. Of 147 questionnaires distributed to course participants, 110 were returned. The questionnaire included 24 items. The results were tallied, and all respondents received a copy.

RESULTS

Composition of Sites Surveyed. One hundred thirty-seven diagnostic and 42 screening mammography sites were represented in the 110 responses. (Some participants were involved with more than one site.) The majority of the diagnostic sites were hospital based (57% hospital, 33% clinic setting, 11% other indicating sites solely dedicated to women's health). The screening facilities tended to be small but diverse, with 35 out of 42 having one mammography unit and 39 of 42 offering other radiological services.

Coordinated Physical Examination of the Breast. Most of the surveyed mammography sites (77%) did not offer a breast physical examination. Instead they request that it be performed by the referring health professional. Only 25 respondents (23%) did offer breast physicals in the mammography department. The majority of those exams were performed by a mammography technologist with special training in that area.

Prior Mammographic Studies. Eighty-two percent of respondents (89/109) request the patient bring with her her prior studies (if they were performed at a different institution). Ninety-three percent (102/109) of facilities attempt to retrieve those studies before issuing final mammographic interpretations. In the largest group of institutions (47%) the technologist obtains the studies followed by a

combination of technologist and secretarial assistant or fileroom personnel (26 and 25% respectively).

Self-Referral. Of participants surveyed, a little over half accepted self-referred patients.

Providing Mammography Results. Of facilities surveyed, 91 percent did not give the patient results of their screening exams and 73 percent did not give results of their diagnostic exams.

Patient Call-Back for Additional Studies. When a screening mammographic exam requires further evaluation because of a questioned abnormality, the patient is then switched to the diagnostic category. This process results in a "call-back" to the patient informing her of the need for additional views or an ultrasound exam. The patient's physician is notified by either the radiologist (via the written report) in 41 percent of the facilities and by the technologist in 29 percent of the facilities surveyed. The remainder of facilities use a nurse, secretarial assistant or combination. In the majority of instances (73%), only the referring physician is notified of the abnormality, whereas in 22 percent of cases both the physician and patient are notified. In 5 percent of cases only the patient is notified. This last group very likely includes self-referred patients although the questionnaire was not constructed in a way to discern this. Since all mammography data is audited, the radiologist is aware of the outcome of abnormal mammograms for which biopsy is recommended. Ninety percent of surveyed facilities will contact the referring physician if a recommended biopsy has not been performed within a given time period, but only 35 percent of these same facilities would contact the patient directly. In regard to the mammography audit, the technologist performed the paperwork (92%) and the pathology quality assurance review (63%) at the sites surveyed. Seventy-four percent of the surveyed facilities use a computer system for data tracking.

Breast Compression. The Mammography Quality Standards Act (MQSA) is an extensive set of regulations compiled by the government and administered by the Food and Drug Administration (FDA) and the American College of Radiology (ACR) to oversee the quality of mammography facilities throughout the United States. MQSA requires facilities to meet certain standards for images. The ACR and FDA recommend enough pressure to cause breast tissue to become taut. Compression is a vital part of the exam as it decreases patient motion, decreases the radiation dose necessary to image the breast, and spreads overlapping glandular tissue. However only 3 percent of facilities stated they would terminate the exam because of images that do not have the proper amount of compression. The vast majority (97%) of facilities stated they do the best they can in working with the patient to achieve adequate compression and perform the exam.

Breast Implants. The management of the breast implant patient is always raised when discussing compression as there have been anecdotal reports of implant ruptures.[1] If the patient has implants, 10 percent of facilities surveyed stated they have the patient sign consent forms prior to mammography.

Scheduling Mammography Examinations. The respondents were queried regarding their scheduling system. Over half (58%) had schedule backlogs which prevent patients from walking in and having their exam immediately. The majority (71%) said that patients with a breast problem were accommodated within one to three days, 20 percent could examine the patient within four to seven days, 6 percent within two weeks, and 4 percent within three weeks. Screening accommodation was more variable with 20 percent of facilities accommodating the patient within one to three days, 23 percent within four to seven days, 23 percent within one to two weeks, 15 percent within three weeks, 16 percent within four weeks, and 3 percent longer than four weeks.

Definition of Screening and Diagnostic Mammograms. The difference between screening and diagnostic exams was alluded to earlier. Screening evaluations are for asymptomatic women. Diagnostic exams are for patients with an abnormal physical exam, prior mammographic findings requiring additional work-up, prior lumpectomy for breast cancer, or past history of breast cancer. Medicare states that women with breast cancer are covered for yearly exams suggesting that they are diagnostic, but that post mastectomy patients can be done as screening exams with the rationale that screening is being performed of the asymptomatic side. This classification is somewhat confusing as demonstrated by our respondents, 31 percent considered asymptomatic mastectomy as screening examinations while 69 percent considered them diagnostic examinations.

Presence of a Radiologist. One of the FDA recommendations is that diagnostic mammograms should be performed under the direct supervision of a radiologist.[2] Only screening exams should be done if a radiologist is not directly overseeing the exam. When asked if extra views are performed to work up an abnormality with no radiologist on site, only 20 percent of participants said no, 15 percent said yes, 42 percent said sometimes, and interestingly 24 percent left the question unanswered. No other question approached this one in the number of non-respondents, even though the remainder of the questionnaire was answered.

Time Allotted for Mammography Examination. The amount of time allotted for screening and diagnostic exams may vary. The majority of respondents (71%) allowed 30 minutes for a screening exam and between 30 and 45 minutes for a diagnostic exam. (78%). The longer time for the diagnostic exam reflects the fact that this exam is tailored by the radiologist in order to best evaluate the specific mammographic problem.

DISCUSSION

Mammography utilization has dramatically increased over the past decade. Reasons for this trend include both improved technology and dissemination of information to patients and physicians about the benefits of mammography. As with any developing program, there are a multitude of ways to provide good service with no one particular strategy being the perfect one. This survey's purpose is to define trends and provide feedback to mammography facilities. We hope to provide data about policies and procedural methods currently in place that may stimulate study of the most effective strategies.

Mammography, although proven to be a very useful screening tool, does have false negative range between 2 percent and 9 percent depending on the series evaluated.[3] Coordinated breast physical examination may improve that statistic by detecting abnormalities that then could be evaluated with diagnostic mammography (involving special directed views) and/or directed ultrasound. One problem with mammography is a negative report does not negate an abnormal physical finding. Dense glandular tissue makes evaluation for masses very challenging. Some carcinomas, particularly infiltrating lobular carcinoma, can be quite extensive without creating a mass or calcifications that can be visualized on the mammogram. In spite of this, a minority of respondents offered coordinated breast physical examinations.

Prior mammographic studies are often extremely helpful to the radiologist in analyzing the patient's present mammogram. Subtle changes such as the developing density may be the only clue to an early malignancy. The majority of respondents requested the patient bring prior films to the appointment. Wilson et al observed that there was only benefit from acquisition of prior outside films when the mammogram showed an abnormality, not from unremarkable mammography films.[4] Questions that would necessitate retrieving outside films include, "How long have the calcifications, circumscribed mass, or asymmetry been present, and has it changed?" As it costs approximately $21.49 to obtain outside studies, this economic issue should be considered.[4]

The number of mammography sites that accept self-referred patients is surprising in that extensive governmental regulations and requirements must be followed to service self-referred patients. Accepting self-referred patients is more expensive than relying on physician referrals because patient follow-up and management programs must be established by the radiologist. In accepting the self-referred patient, the radiologist legally accepts the role of the primary care physician. This practice does allow more women to undergo screening and reaches those women who may fall outside the traditional medical system.

There has been recent debate in the radiology literature as to whether the referring physician or the radiologist should deliver mammography results to the patient. Some clinicians believe the radiologist should not deliver this information, that this practice interferes with the doctor-patient relationship and usurps the role of the primary provider.[5] However several studies, including those by Liu et al. and Hoffman et al. have documented that patients would like to receive their results at the conclusion of their exams.[5-6] Though many radiologists would find it desirous to have direct communication with their patients, their efforts are often thwarted by inadequate time and an infrastructure not geared toward direct radiologist-patient communication.

Breast compression is a vital part of obtaining a high quality mammogram and yet the discomfort associated with it can persuade a woman to avoid future mammographic exams. Some recommended strategies to help women tolerate adequate compression include scheduling the exam immediately after her menstrual period when her breasts are least tender, taking Tylenol or nonsteroidal anti-inflammatory medication before and after the appointment, and having the technologist

explain the importance of adequate compression before the exam begins. Allowing the patient to ask questions, as well as informing her that continued compression will be terminated if she is unable to tolerate it, also may help with compliance.[7]

Breast implants offer challenges to the technologist performing the exam. She needs to be cognizant of the different techniques needed to image implants including the need for less compression when imaging directly over the implant. A recent article by Brenner and Ecklund reported that there is no legal need to obtain informed consent prior to performing the mammogram on the patient with implants but that the proper technique designed for implants needs to be performed.[8]

As stated previously, this is a glimpse of what is happening across the state in regards to mammography facilities. This survey is biased by the fact that only course participants responded to the questionnaire. However, it does reveal many consistencies and similar modes of operation from very diverse mammography facilities. Some of this may be a factor of the MQSA regulation but some of it may also be from sharing of information among Wisconsin radiology practices as to which policies work and which do not work. This survey will allow physicians to determine how their policies compare to those of other mammography facilities across the state and in adjoining states.

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Management of Peripartum Hemorrhage

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The Maternal Mortality Study Commission's ongoing evaluation of maternal deaths in Wisconsin reminds us that peripartum hemorrhage still causes fatalities. A review and update of the management of this condition is therefore presented. Admittedly, much of the advice given below is unchanged from a similar article published in this journal 35 years ago by another member of the Maternal Mortality Study Commission.[3]

THE BASIC APPROACH

Acute peripartum hemorrhage can turn a joyous occasion into a nightmare. The bleeding occurs too rapidly to permit transfer of a patient to another facility, so every obstetrical service must be prepared to handle this emergency. Predisposing factors noted in Table 1 should be recognized ahead of time. The obstetrical nurses on each shift must be able to quickly locate all necessary medications and instruments. Qualified physicians must be readily available to direct medical therapy and perform relevant surgical procedures.

The physician must carry out a stepwise management plan based on knowledge of the etiologies suggested in Table 1. The focus is on eliminating the source of bleeding and replacing critical blood components. At the same time, the baby's well-being is of constant concern.

The common clinical presentations will be addressed first. Then, guidelines for fluid and blood component therapy will be reviewed. Finally, immediate postpartum hemorrhage will be discussed in greater detail because this was the clinical setting associated with a recent maternal death in Wisconsin.

THE CLINICAL SCENARIOS

Antepartum Painless Vaginal Bleeding. Patients periodically present in the third trimester of pregnancy with painless vaginal bleeding or bleeding associated with mild contractions. In this situation, one must consider an ultrasound to look for placenta previa before doing a speculum or digital exam. Prior ultrasound reports should be reviewed with regard to placental location. It is important to ask the patient about prior bleeding episodes. This is because women with placenta previa usually have a minor "sentinel" bleed that precedes the terrifying torrent. The fetal heart rate and maternal vital signs must be checked early and frequently.

The main differential diagnoses are benign cervical bleeding, partial or complete placenta previa, early placental abruption, uterine scar dehiscence, trauma, and vase previa. Keeping these etiologies in mind, the clinician must respond to several critical questions: How soon and by what route should this baby be delivered? How many and what kind of medical staff are needed? What intravenous access and lab tests are indicated? What medications and blood products should be ordered? How often and by what means do the mother and fetus need to be monitored? The answers to these questions must be reconsidered as the situation evolves.

Painful Antepartum Bleeding. Pain and vaginal bleeding late in pregnancy are often due to labor and cervical bleeding. However, placental abruption is another possibility. Uterine hypertonus and fetal distress increase the likelihood of a significant abruption. Pre-disposing factors for placental abruption include pregnancy-induced or chronic hypertension, cigarette smoking, preterm premature rupture of membranes, external trauma, cocaine abuse, uterine leiomyomata and previous abruption. The critical questions in the decision process are basically the same as those mentioned in the preceding section.

Antepartum Coagulopathy. Patients with a known or potential coagulopathy should have clotting studies checked on admission to labor and delivery and thereafter as indicated. This most commonly applies to patients with thrombocytopenia secondary to toxemia. There is generally no risk of

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Table 1. Risk Factors for Peripartum Hemorrhage

Antepartum	Intrapartum
Previous postpartum hemorrhage	Placental abruption
Previous retained placenta	Protracted 1st stage of labor
Uterine overdistension	Prolonged 2nd stage of labor
(eg. macrosomia, polyhydramnios, twins)	Oxytocin augmentation
Placenta previa	MgS04 infusion
Retained dead fetus	HELLP syndrome *
High parity	Pre-eclampsia with DIC
Inherited coagulopathy	Chorioamnionitis/sepsis
Prior cesarean section	Precipitous labor
Leiomyomata	Forceps delivery
	Cesarean section

* A variant of severe pre-eclampsia characterized by hemolysis, elevated liver enzymes and low platelets.

bleeding with platelet counts over 50,000/mm3. Prophylactic platelet transfusions are indicated for counts less than 20,000/mm3. Platelet transfusions are also indicated with platelet counts of under 50,000/mm3 if an operative delivery is planned.[1]

Immediate Postpartum Hemorrhage. Postpartum hemorrhage is defined as blood loss of greater than 500 cc. In actual practice, there is no accurate means of measurement, but experienced staff quickly realize that bleeding is excessive. The most common etiologies are uterine atony, retained placenta, and coagulopathy. Uterine scar dehiscence, uterine rupture, and uterine inversion are more unusual causes.

FLUID RESUSCITATION AND BLOOD COMPONENT THERAPY

Fortunately, most pregnant women are in generally good health and have an increased blood volume at term of 1-2 liters. One notable exception is the patient with a hypertensive disorder. Such a woman may have a compromised cardiovascular system and is less tolerant of blood loss.

In the acute situation, the estimated blood loss and vital signs guide the rate of crystalloid infusion and the orders for blood components. Multiple large bore IV's must be placed. Crystalloid is infused at a rate necessary to maintain blood pressure and profuse vital organs. Packed cells are necessary to provide oxygen carrying capacity. Acute blood loss greater or equal to 15 percent of estimated blood volume is an indication for red cell replacement. In a 60 Kg. pregnant woman this amounts to a blood loss of approximately 1,000 cc's. O-negative or group and type specific blood can be used until cross matched packed red blood cells are available. For every six units of packed red blood cells, two units of fresh frozen plasma should be given to provide clotting factors.

Hematocrit, hemoglobin and clotting studies should be drawn at intervals, but the results may lag behind what is happening to the patient. The clinician must be continuously aware of the patient's pulse, blood pressure, mental status, urine output and blood clotability.

Nevertheless, lab parameters should be kept in mind. Clotting studies plus a hematocrit or hemoglobin and platelet count should be performed initially and after administration of every five to 10 units of blood. Oxygen carrying capacity is inadequate when the hematocrit drops below 21 percent or the hemoglobin below 7 g./dl. Fresh frozen plasma (FFP) is given to maintain the PT and PTT less than 1.5 times the laboratory's upper normal limits.[1] If more than five to six units of packed red cells are required, serum calcium and magnesium levels need to be checked. Platelet transfusion is indicated with platelet counts of under 50,000 if a cesarean section is planned. If massive red cell transfusions are required (10 units of packed cells in a 60-70 Kg. woman) platelets should be ordered. One must be aware that many smaller hospitals do not have platelets on hand and must activate emergency transportation mechanisms. A rule of thumb is to administer eight packs of random, pooled, donor platelets for every six units of packed red blood cells. One single donor apheresis unit of platelets is equivalent to six to eight random donor packs. A D-negative woman will need

Rh immune globulin prophylaxis if she receives platelet packs that might contain Rh-positive red cells.

Autologous transfusion using a cell saver is rarely feasible with peripartum hemorrhage.

MANAGEMENT OF IMMEDIATE POSTPARTUM HEMORRHAGE

1. If postpartum bleeding seems excessive or if the placental separation is delayed over 20 to 30 minutes, manual removal of the placenta is indicated.
   a. One should check to see if the bladder is full and catheterize it as needed.
   b. One or more large bore intravenous lines should be in place.
   c. The absence of any cleavage plane between the placenta and the uterine wall suggests total placenta accreta. In this rare instance, hysterectomy will almost certainly be necessary.
   d. Selected cases of partial placenta accreta can be managed initially with prompt uterine curettage and uterotonic agents. Hysterectomy is indicated for persistent bleeding, especially in older women with higher parity. Uterine or hypogastric artery ligation may be attempted in younger patients of lower parity who desire more children and are hemodynamically stable.
   e. Uterine packing is rarely helpful but may buy time in cases of placenta accreta or refractory uterine atony.
   f. Hypovolemia and coagulopathy must be treated concomitantly using the guidelines mentioned previously.
2. In the placenta has delivered and there is profuse bleeding and a hypotonic uterus, the uterus should be explored and then bimanually compressed.
   a. A large bore IV of lactated Ringers should be running wide open and should contain 20 to 40 units of oxytocin per liter. IV bolus oxytocin is less desirable because it can worsen hypotension.
   b. Methylergonovine maleate (Methergine®, Sandoz Pharmaceuticals, Hanover, NJ) 0.2 mg. I.M. is a second line uterotonic. It should not be given IV because this can cause dangerous cerebrovascular constriction.
   c. 15-Methyl-PGF2-alpha (Hemabate®, Upjohn Company, Kalamazoo, MI) is a new alternative to methylergonovine. Doses of 0.25 mg. are given IM every 15 to 60 minutes up to a total of 1.5 mg. or 6 doses. There does not seem to be any advantage of intramyometrial injection. Bronchospasm and hypertension are rare potential side effects.
   d. If uterine exploration and compression and uterotonics are not successful, it is necessary to prepare for immediate laparotomy. Meanwhile, one must keep the crystalloid running freely through multiple large bore IV's and stay ahead on blood component orders.
3. Persistent bleeding in the presence of a firm uterus suggests vaginal, cervical, or uterine lacerations or uterine rupture.
   a. Predisposing factors include operative vaginal delivery, past or current cesarean delivery, and macrosomia. In addition, premature maternal pushing can tear an incompletely dilated cervix.
   b. Good light, ring forceps, right angle retractors and extra helping hands are all necessary to locate and repair deep vaginal or cervical lacerations.
   c, Hemorrhage associated with uterine scar dehiscence requires immediate laparotomy. A bimanual exam will make the diagnosis.
   d. Uterine, cervical and vaginal lacerations can cause severe bleeding in the course of a cesarean section. The operating surgeon must have the skills and experience to repair such lacerations while avoiding injuries to the bladder or ureters.
4. When no lacerations are present and the uterus is firm but heavy bleeding persists, a retained placental fragment or a coagulopathy must be considered. Immediate uterine curettage with a large banjo curette will almost always retrieve the offending placental fragment. A complete blood count and clotting studies should be sent while one sets up for the curettage.
5. Uterine inversion is a rare but potentially fatal cause of immediate postpartum hemorrhage. It is usually due to traction on the umbilical cord attached to a fundal placenta.
   a. An immediate call should be placed to the operating room crew and anesthesiologist.
   b. If the placenta has spontaneously separated, one can try pushing the fundus cranially in the long axis of the vagina.
   c. At least two large bore IV's with lactated Ringers running wide open can maintain the vascular volume until blood is available.

d. Terbutaline 0.25 mg. IV or magnesium sulfate 4-6 grams IV slow push and/or general anesthesia may be useful to relax the uterus and facilitate repositioning.
e. No attempt should be made to detach the placenta prior to uterine relaxation. Once the uterus is relaxed, the placenta can be removed and the fundus pushed cranially.
f. Oxytocin is not given until the uterus is restored to its normal position.
g. If the uterus cannot be reverted from below, a laparotomy must be performed. Traction sutures are placed, or a uterine contraction ring is excised.

SURGICAL SKILLS

Every obstetrical service needs a readily available surgeon who has experience with difficult cesarean sections, uterine and hypogastric artery ligation, uterine rupture repair, and cesarean and supracervical hysterectomy. Knowing how to perform high and low uterine artery ligations is particularly useful because this technique is quick, relatively safe, and usually effective. Uterine rupture usually requires hysterectomy, but repair with continuous or interrupted absorbable sutures in two or three layers may be attempted in selected cases. Whenever a laparotomy is performed, a complete hysterectomy pack including self-retaining retractors should be opened. Uterine packing is rarely helpful, but aortic compression can buy a little planning time.

It is important to call for lots of help. An anesthesiologist and qualified surgical assistants are obviously needed. Other staff to recruit include another surgeon, a pediatrician, a respiratory therapist, lab technicians, and extra nurses.

There are important ancillary considerations. Two large bore intravenous lines are a minimum. A Foley catheter should be in place. Febrile morbidity is common so a treatment course of antibiotics should be given. The preoperative and anticipated intraoperative blood loss must be taken into account.

FINAL COMMENTS

Everyone involved in obstetrics should have a healthy fear of obstetrical hemorrhage. The proper response to this fear is to periodically review the essentials of management. Hopefully, the strategies reviewed here will be useful to Wisconsin physicians faced with this emergency.

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Wisconsin Statutes Regarding HIV Testing in Primary Care: Frequent Questions and Answers

James M. Vergeront, MD, William J. Reiser, MSN, Jean K. Druckenmiller, BS, Kathleen A. Krchnavek, MSSW, Jeffrey P. Davis, MD

ABSTRACT

The authors review Wisconsin statutes related to human immunodeficiency virus (HIV) testing in primary care, including the areas of written informed consent, documentation of consent, testing without consent, testing of minors, disclosure of test results without the consent of the test subject, reporting requirements, discrimination, access by insurance companies and third-party payors to HIV test results, and civil liabilities and criminal penalties associated with violation of HIV-related state statutes.

During the course of the HIV epidemic in Wisconsin, many individuals (service providers, legislators, consumers and advocates) supported the enactment of HIV-related legislation. Today, Wisconsin has some of the nation's most comprehensive HIV legislation. These laws have set a legal framework that balances the rights of individuals with protection of the public's health. The relatively low seroprevalence of HIV infection in Wisconsin can be attributed, in part, to the state's HIV-related legislation.

While Wisconsin HIV legislation is broadly focused, much of it is concerned with HIV testing. This article examines common questions as they pertain to HIV testing in primary care and to the following areas addressed by state statutes[1]:

- counseling and referral for health and support services [Wisconsin statute s. 252 14(3)]
- informed consent for testing or disclosure [Wisconsin statute s. 252.15(2)]
- written consent to disclose [Wisconsin statute s. 252.15(3) & (4)]
- testing without consent of the test subject [Wisconsin statute s. 252.15(2)]
- confidentiality of an HIV test [Wisconsin statute s. 252.15(5)]
- reporting of positive test results [Wisconsin statute s. 252.15(7)]
- discrimination [Wisconsin statute s. 252.14(2)]
- civil and criminal liabilities [Wisconsin statute s. 252.14(4); 252.15(8) & (9)]

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WHAT IS WRITTEN INFORMED CONSENT?

Persons undergoing HIV testing in Wisconsin must provide written informed consent for both testing and for disclosure of test results. Wisconsin statute defines the informed consent form as a printed document on which a person consents in writing for HIV testing or authorizes the disclosure, in writing, of HIV test results to a specified person. Wisconsin law [s. 252.15 (2) (b)] specifies that the consent form include, at a minimum, the following:

- the name of the test subject and the name of the health care agent if the test subject has executed a power of attorney for health care instrument and has been found to be incapacitated,
- a list of persons to whom and the circumstances under which statutes specify that test results may be disclosed without consent or a statement that a listing of such persons and circumstances is available upon request,
- space for the signature of the test subject or the health care agent and the date on which the consent is signed,
- space for the name of a person to whom the test subject or health care agent authorizes disclosure of test results (if any), the date on which the consent for disclosure is signed, and the time period during which the consent for disclosure is effective.

A test subject or a health care agent may authorize a health care provider, blood bank, blood center or plasma center to disclose the test subject's test results to anyone at any time subsequent to providing informed consent for disclosure.

The Wisconsin AIDS/HIV Program has sample consent forms which can be adopted. Health care providers and agencies may customize consent forms if they meet minimum statutory requirements.

What information must be provided for informed consent when testing someone for HIV?

Health care providers who test individuals for HIV must provide HIV counseling and referral for needed health and support services [s. 252.14 (3)]. The health care provider is required to explain the HIV test and results to the test subject. The provider is also required to identify to whom or under which circumstances test results may be disclosed – explain that a listing of such individuals and circumstances is available upon request [s. 252.15 (2) (a)]. *See section below on disclosure of test results for the circumstances under which individuals may have access to test results without a test subject's consent.*

Where should documentation of HIV testing be recorded?

HIV testing is a medical procedure. When testing is done with consent of the test subject or other person authorized to consent on behalf of the test subject, testing should be documented in the patient's record, similar to any laboratory test. The health care provider must also maintain a record of the informed written consent [s. 252.15 (4)]. However, certain testing without consent may restrict the type of records that may be maintained. *See discussion below on testing without consent.*

When can HIV testing occur without test subject's consent?

The test subject's informed consent for testing is not required under certain conditions [s. 252.15 (2) (a)] including:

- testing of donors of blood, plasma, tissue, or other body parts;
- a medical emergency, as determined by the attending physician of a potential donee, when a human body part or human tissue which has been tested for HIV is unavailable;
- for purposes of research, when the identity of the test subject is not known and may not be retrieved by the researcher;
- testing individuals who are adjudicated incompetent, who are under 14 years of age, or who are unable to communicate due to a medical condition. Under these circumstances, a guardian may consent for a person who is adjudicated incompetent; a parent or guardian may consent for an individual under 14 years of age; and an individual's closest living relative or another with whom the individual has a meaningful social and emotional relationship may consent for an individual who is unable to communicate due to a medical condition and is not a minor nor adjudicated incompetent;
- court ordered testing of the defendant in cases of sexual assault or certain other crimes where the victim of the crime is significantly exposed; however, the sample cannot disclose the name of the test subject and test results may not be made part of the test subject's permanent medical record;
- significant exposure in the course of certain occupations (primarily health care, fire fighting, law enforcement, or in correctional settings), where the exposure occurs under the following conditions:
  - the affected person used universal precautions when exposed;
  - a physician certifies in writing that the affected person was significantly exposed, using a form required by statute;
  - the HIV test is performed on blood drawn for a purpose other than HIV testing, except where blood is unavailable and the affected person certified to have been significantly exposed requests the District Attorney to apply for court-ordered testing through the circuit court;
  - the source person, if capable of consenting, has been given an opportunity to be tested with his consent and has not consented;
  - the source person has been informed that his or her blood may be tested for the presence of HIV; that the test result may be disclosed to no one without the source person's consent, except to the affected person who is certified to have been significantly exposed; that, if the affected person who has been exposed knows the identity of the source person, the affected person may not disclose the source person's identify to anyone except for the purpose of having the test or series of tests performed; and that a record may be kept of the test results only if the record does not reveal the source person's identity.

Can minors consent to HIV testing?

Wisconsin HIV statutes place the primary consent authority on the person who is the test subject. The statutes explicitly limit the HIV testing authority of a person or guardian when the minor is 14 years of age or older [s. 252.15 (2) (a) 4]. However, nothing in the statutes prohibits a minor under the age of 14 from independently consenting to an HIV test. A minor less than 14 years of age who is determined by a provider to be capable of making an informed decision and who understands the consent process may give written consent without involvement of the parent or guardian. Parent or guardian consent authority for minors is limited to the following conditions:

- The parent or guardian can consent to HIV testing and disclosure of the test results only when the minor is under the age of 14, when the minor is 14 years of age or older and is unable to communicate due to a medical condition, or when the minor is 14 years of age or older and has been adjudicated incompetent. In all other circumstances, the minor is the sole person able to consent.
- the minor is adjudicated incompetent, the guardian has authority to consent but the parent does not have consent authority if not designated as the guardian
- The parent or guardian has automatic access to the test results only if the parent or guardian was the person who gave consent for the test to be performed. If it was the minor who consented to testing, the parent or guardian has access to the test results only with the minor's consent or with a court order.

Can HIV test results be disclosed without consent of the test subject?

In general, only the test subject and the test subject's health care agent (if the test subject has executed a power of attorney for health care and has been found to be incapacitated) may disclose the test subject's test results. However, Wisconsin statutes [s. 252.15 (5)] list the following circumstances or individuals who may have access to test results without the subject's specific consent (The statute contains additional details about these access categories.) This list includes:

- the subject of the test and, if the subject is incapacitated, the health care agent designated in a power of attorney form;
- the person who provides consent for testing an individual who is adjudicated incompetent, is under 14 years of age or is unable to communicate because of a medical condition, but only while the person remains incompetent, under 14, or unable to communicate;
- the subject's health care provider;
- an agent or employee of the subject's health care provider, including persons providing patient care, lab services or medical records duties;
- the State Epidemiologist or his/her designee, for the purpose of providing epidemiologic surveillance or investigation or control of communicable disease;
- an affected person who is significantly exposed under conditions discussed previously regarding testing without consent;
- persons rendering emergency care to a victim if a physician certifies the emergency caregiver has been significantly exposed;
- under specified conditions, persons known by the attending physician to have had sexual contact or shared intravenous drug paraphernalia with a patient;
- blood or plasma centers that subject a person to a test;
- health care providers involved in tissue banking or transplant services;
- health care facility staff committees or accreditation or health care services review organizations;
- a coroner, medical examiner or appointed assistant for specified reasons;
- a sheriff or their staff for specified reasons;
- an alleged victim or victim of sexual assault, the victim or alleged victim's parent or guardian if the victim or alleged victim is a minor, and the victim's or alleged victim's healthcare provider;
- under lawful order of a court of record;
- a person who conducts research, for the purpose of research, if the researcher complies with very specific restrictions;
- certain persons involved in placing children in a foster home, group home or child caring institution; the foster parent or operators of the group home or child caring institution;
- funeral directors and their assistants or persons performing autopsies or assisting in autopsies;

In some of these instances, special restrictions apply and therefore the statutes should be referenced.

What are the reporting requirements for positive HIV test results?

Physicians who obtain positive HIV test results are required to report them to the State Epidemiologist

[ss. 252.15 (5) (a) and 252.15 (7)]. Physicians should report this information on the *Wisconsin Human Immunodeficiency Virus (HIV) Infection Confidential Case Report* (form DOH 4338).

A case report form (DOH 4338) should be completed for patients with reactive Western blot HIV antibody tests, reactive HIV p24 antigen tests, or positive HIV DNA polymerase chain reaction (PCR).

Information requested on the reporting form includes name and address of the health care provider reporting; name and address of the subject's health care provider, if known; name, address, telephone number, age or date of birth, race and ethnicity, sex and county of resident of the test subject, if known; date on which the test was performed; test result; and any other medical or epidemiologic information required by the State Epidemiologist for the purpose of exercising surveillance, control and prevention of HIV infections.

Wisconsin statutes specifically prohibit reporting the sexual orientation of the test subject when reporting cases of HIV infection. Except for the process described in 1997 Wisconsin Act 54 [s. 252.15 (7m)], the statutes also prohibit reporting the identity of persons with whom the test subject may have had sexual contact.

Under Wisconsin communicable disease statutes [s. 252.051 physicians are also required to report confirmed or suspected cases of Acquired Immunodeficiency Disease Syndrome (AIDS). AIDS cases should be reported to the State Epidemiologist on the *AIDS Case Report* (form DOH 4264). AIDS case reports should be submitted for persons previously reported with HIV infection but who have progressed to AIDS. Physicians are requested to notify the AIDS/HIV Program upon a patient's death.

Case report forms should be sent in an envelope marked "confidential" to: James Vergeront, MD, Wisconsin Division of Health, Bureau of Public Health, 1414 E. Washington Ave, Room 167, Madison W1 53703-3043.

Can physicians report the names of sexual or needle-sharing partners of HIV-infected persons?

Wisconsin s. 252.15 (7m) (1997 Wisconsin Act 54, enacted on December 19,1997), authorizes any physician who maintains a record of a test result from a test subject to report to the State Epidemiologist the name of any person known to the physician to have been significantly exposed to the test subject. Reporting may occur only after the physician has counseled the test subject to inform any person who has been significantly exposed to the test subject and notified the test subject that the name of any person known to the physician to have been significantly exposed to the test subject will be reported to the State Epidemiologist.

Clinicians needing to report or discuss individuals who have been significantly exposed to an HIV-infected individual should call the Wisconsin Partner Notification Program at 608-267-5288 (in Milwaukee: 414-286–8512).

What are the major provisions in HIV-related state statutes regarding discrimination?

Health care providers (and other individuals and agencies specified by the statute) who have access to a validated test result are prohibited from discriminating against persons with HIV infection based on their HIV status or an illness or condition related to HIV infection [s. 252.14]. Specifically, health care providers are prohibited from refusing to treat the individual, if the individual's condition is within the scope of licensure or certification of the health care provider or agency; providing care to the individual at a standard that is lower than that provided other individuals with like medical needs; isolating the individual unless medically necessary; and subjecting the individual to indignity, including humiliating, degrading or abusive treatment.

A health care provider, home health agency or inpatient health care facility that treats an individual with HIV infection is required to develop and follow procedures that ensure continuity of care for the individual in the event that the individual's condition exceeds the scope of licensure or certification.

Can insurance companies and third-party payors access HIV test results?

Insurance companies and third-party payors cannot access HIV test results unless the test subject has provided written consent for disclosure of test results. While insurance companies and third-party payers may become aware when reviewing services or processing payment of services that testing was conducted, access to the actual test results is restricted to only those individuals for whom the test subject has provided consent for disclosure [s. 252.15 (5)].

Can I test a patient who does not want a test result to be part of the medical record?

When testing is done with consent, it is legal to document HIV test results in a patient's medical record. However, some clinicians have segregated HIV test records from patient records in response to patient concerns or unique practice policies.

In some settings or circumstances, clinicians provide patients the option of direct payment of HIV testing in lieu of charging insurance.

What are the civil liabilities and criminal penalties associated with violation of HIV-related state statutes?

Anyone found liable for violating statutory provisions related to discrimination is liable to the patient for actual damages and costs, plus exemplary damages of up to $5,000 for an intentional violation [s. 252.14 (4)].

An individual found liable for violating statutory provisions regarding HIV testing, confidentiality, and disclosure is liable to the test subject for actual damages and costs, plus exemplary damages up to $1,000 for negligent violation and up to $5,000 for an intentional violation [s. 252.15 (8)].

An individual who intentionally discloses the results of a blood test in violation of statutes and thereby causes bodily harm or psychological harm to the test subject may be fined not more than $10,000 or imprisoned not more than nine months or both [s. 252.15 (9)].

FOR ADDITIONAL INFORMATION

Physicians with questions about HIV-related Wisconsin statutes can obtain assistance from staff in the Wisconsin AIDS/HIV Program or legal counsel at the State Medical Society of Wisconsin. The Wisconsin AIDS/HIV Program has resource materials, including copies of Wisconsin statutes and administrative code pertaining to AIDS and HIV infection, sample consent forms for HIV testing, HIV and AIDS case report forms, and other materials. The current Wisconsin statutes are available on the Internet on the Revisor of Statutes website at: http://www.legis.state.wi.us/rsb/index.html.

To obtain further information or request materials, contact the AIDS/HIV Program at: Wisconsin AIDS/HIV Program, Wisconsin Division of Health, Bureau of Public Health, 1414 E. Washington Ave., Room 167, Madison, W1 53703-3043; 608-267-5287.

REFERENCES

1. This paper is based on Wisconsin statutes enacted prior to October 9, 1998. Therefore, statutory changes enacted after this period are not part of this discussion.

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Meeting the Challenge of Early Identification of HIV Infection in Primary Care

James M. Vergeront, MD, William J. Reiser, MSN, Kathleen A. Krchnavek, MSSW, Jean K. Druckenmiller, BS, and Jeffrey P. Davis, MD

ABSTRACT

The authors review the role of human immunodeficiency virus (HIV) testing in primary care, including an overview of epidemiologic trends of the HIV epidemic; avenues for HIV counseling and testing; HIV testing assays; guidelines for HIV test counseling in primary care; special situations involving testing of pregnant women, infants, and young children; post-exposure prophylaxis; and related resources available to Wisconsin primary care clinicians.

HIV disease is a major cause of premature death and disability in the United States. Advances in the understanding of the pathogenesis of HIV and developments of newer antiretroviral therapies have resulted in dramatic changes in the management of HIV disease. Combination antiretroviral drug therapy has resulted in prolonged and near complete suppression of detectable HIV replication in many HIV- infected persons.[1]

These clinical developments underscore the importance of early identification and intervention in HIV disease. Intervention during primary HIV infection, the time when the viral burden "set point" is achieved, may present a special window of opportunity to effectively intervene in limiting viral replication in an infected individual.[2] This earliest intervention may have major benefits for infected persons and society at large. Decreasing viral load during primary HIV infection may decrease an individual's infectiousness and thereby decrease the overall rate of transmission of infection to others.

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Primary care clinicians play a critical role in diagnosing, managing, and preventing HIV infection. Because of the ongoing relationship between patient and health care provider, the primary health care clinician is in the best position to provide HIV risk assessment, testing, related prevention education, and coordination of needed health care.

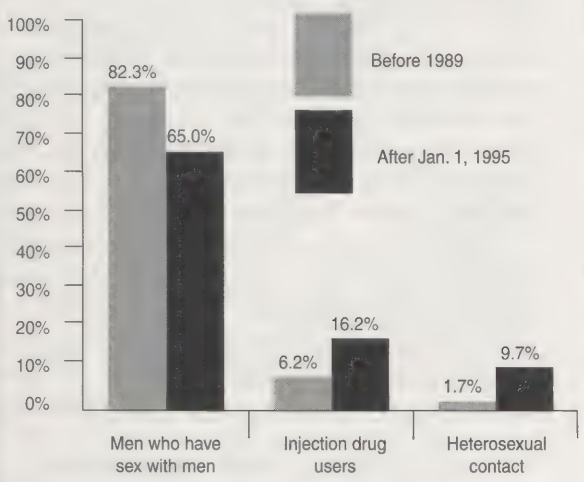
This article presents guidelines for conducting HIV counseling and testing in primary care for purposes of furthering the public health objective of early identification of HIV infection. Clinicians can achieve this objective by including HIV risk assessment during the initial history and physical exam of every patient.

EPIDEMIOLOGIC TRENDS

The Centers for Disease Control and Prevention (CDC) estimates 650,000 to 900,000 HIV-infected persons are living in the United States and that approximately 30 percent are unaware of their infection.[3] Through September 30, 1998, cumulatively 6,400 persons with HIV infection have been reported to the Wisconsin Division of Public Health (DPH); 4,027 persons met the CDC criteria for AIDS and 2,373 persons have HIV infection but are not currently classified as having AIDS. The Wisconsin AIDS/HIV Program estimates approximately 8,000 Wisconsin residents are currently infected with HIV.

Of all AIDS cases reported in Wisconsin, 70 percent have been among men who have sex with men, including men who have sex with men and inject drugs. Prior to 1988, 82 percent of Wisconsin AIDS cases were among men who have sex with men. In recent years, this percentage has declined; however, men who have sex with men continue to represent the majority of reported cases (Figure 1). Injection drug use is the second most common exposure category of persons reported with AIDS in Wisconsin, representing 13.3 percent of persons reported with AIDS. AIDS cases among injection drug users (IDUs) have

Figure 1
Comparison of exposure category distribution, AIDS cases reported before 1989 and after January 1, 1995, Wisconsin



increased in recent years. (Figure 1). In Wisconsin, 7.2 percent of all persons reported with AIDS report heterosexual contact as their risk exposure. Prior to 1988, 1.7 percent of Wisconsin AIDS cases were classified as heterosexual contact, compared to 9.7 percent among cases reported since 1995. Heterosexual transmission is closely linked to drug injection. In Wisconsin, 53 percent of persons classified in this category report having had an IDU as a sex partner.

HIV seroprevalence surveys conducted in Wisconsin from 1989 through 1994 indicate, on average, about 20 children were born to HIV-infected mothers each year. HIV infection among children in this category is closely linked to injection drug use. Most children infected at birth have a mother who has either injected drugs or has been a sex partner of an injection drug user. Of the children less than 13 years old reported to the Wisconsin AIDS/HIV Program, 52 are assumed to be living with HIV infection in Wisconsin.

Early in the epidemic, HIV transmission occurred among persons with hemophilia and among blood product recipients. In Wisconsin, 2.3 percent of reported AIDS cases have been among persons with hemophilia and 1.4 percent among transfusion recipients. Since screening of the blood supply began in 1985, HIV transmission through contaminated blood or blood products has become very rare.

Table 1
Who should be tested for HIV?

- Persons with a previous or current history of a sexually transmitted disease
- Persons seeking treatment for or reporting a history of intravenous or illicit drug use
- Men who have had sex with other men
- Persons diagnosed with tuberculosis
- Persons who have been sexually assaulted
- Persons who have immigrated from countries with a high incidence of AIDS/HIV disease (Sub-Saharan Africa: all countries of Africa except Morocco, Mauritania, Algeria, Libya, Egypt, Tunisia, Sudan, Somalia and Western Sahara)
- Persons who have had a significant occupational exposure to HIV
- Persons who have exchanged sex for money or drugs (prostitution)
- Persons with a history of unprotected sexual contact with non-monogamous partners
- Women of childbearing age with any identifiable risks listed above and all pregnant women
- Persons who consider themselves at risk for HIV infection
- Persons who received blood transfusions or blood products between 1978 and March 1985

SETTINGS FOR HIV COUNSELING AND TESTING

HIV testing occurs in a variety of settings, including medical clinics, hospitals, and publicly funded counseling and testing sites. Approximately 80 percent of HIV infections in Wisconsin are identified by physicians in the private sector.

Today, most private insurers and federally supported health programs cover the costs of HIV testing. The DOH subsidizes publicly funded HIV testing in local health departments, STD clinics, family planning agencies, tribal health clinics, community health centers, AIDS services organizations, and other private nonprofit agencies. Publicly funded testing sites were originally established in the mid-1980's to reach individuals who did not have a health care provider, lacked adequate resources or insurance for testing, or were uncomfortable discussing HIV-related issues with their provider. The Wisconsin HIV Counseling and Testing Program is currently redirecting its focus to individuals truly at highest risk who would otherwise not receive services through a primary health care provider. Thus, the clinician's role in providing counseling and testing services to individuals in primary care is increasingly important (Table 1).

Table 2. HIV Assays

Common antibody blood tests
HIV antibody EIA (enzyme immunoassay)
HIV antibody Western blot

Other blood tests
HIV DNA PCR (polymerase chain reaction)
HIV p24 antigen
HIV culture
HIV RNA PCR (viral load)
HIV branched chain DNA
nucleic acid sequence-based amplification

Other body fluid tests
oral fluid HIV antibody EIA
oral fluid HIV antibody Western blot
urine HIV antibody EIA
urine HIV antibody Western blot

HIV TESTING ASSAYS

Among the variety of assays currently available for diagnosing HIV infection (Table 2), the most commonly used HIV-1 antibody screening test is the enzyme-linked immunosorbent assay (ELISA or EIA) which tests for antibody in serum. Although the sensitivity and specificity of the EIA are very high, false–positive results occur at a rate of approximately 1 to 5 per 100,000 assays.

Reactive EIAs must be confirmed with the more specific Western blot assay. No positive test results should be reported to patients until a screening test has been repeatedly reactive (≥2 positive tests on the same blood specimen) and a supplemental confirmatory test, such as the Western blot, has been done. A positive Western blot result is defined by the presence of any two of the following bands: p24, gp41, and gp 120/160. Because test results and laboratory protocols can vary, it is important that only reliable, licensed laboratories using FDA-licensed test kits be used for HIV testing.

The further refinement of rapid testing technologies for HIV antibody may enable physicians to provide patients with same day test results. Currently, one rapid HIV antibody test (Single Use Diagnostic System [SUDS] HIV-1 Test, Murex Corporation, Norcross, Georgia) has been approved by the FDA. This test is a screening test and requires follow-up confirmatory testing for positive results. The sensitivity and specificity of rapid tests are comparable to those of EIAs. Use of the rapid test alone among low prevalence populations will result in more false positive test results than testing among high prevalence populations. In the future, second and third generation rapid tests will likely improve the utility of rapid testing among low prevalence groups.

Table 3

Examples of risk assessment questions pertaining to sexual and drug histories
"When was the last time...
...you had sex with another man/woman?"
...you had non-monogamous sexual partners?" (you had sex with someone who had sex with other people during the same time period?")
...you had anal receptive intercourse?" (a man put his penis in your rectum?")
...you used recreational, non-prescription injection drugs? What type of drugs?"
...you injected yourself with any drug? Which one(s)?"
...you shared needles?"
...you enrolled in a drug rehabilitation program?"
...you were tested for HIV?"
...you had anonymous sex, that is, with people you did not know or see again?"
...you had sex with a male or female prostitute?"
...you exchanged sex for money or drugs?"
...you had sex with someone with AIDS or someone infected with HIV, the virus which causes AIDS?"

Additional questions:
"Do you always use condoms when you have sex?"
"Have you ever been tested for HIV?"
"Do you donate blood/plasma? If yes, when did you start and when was the last time you donated?"

HOME SPECIMEN COLLECTION KITS

The FDA approved the first two home-use specimen collection kits for HIV serologic testing in 1996. One vendor discontinued sale of its kit because of limited consumer interest. Consumers can purchase kits in most pharmacies or drug stores. The consumer obtains a finger-stick blood sample at home and mails it to a laboratory where testing is conducted with standard EIA and Western blot tests. The consumer accesses test results by telephone through an anonymous identification number. Persons who test positive receive their results from a telephone counselor who is trained in HIV counseling.

GUIDELINES FOR HIV TEST COUNSELING IN PRIMARY CARE ASSESSMENT

All patients should be assessed routinely for risk of HIV infection. Clinicians should explain to patients

that risk assessment is a routine part of health care and it helps determine if HIV antibody testing is recommended. Risk assessment provides an opportunity for the exchange of important information between patients and clinicians, which can help persons understand risk behaviors and the ways in which they can reduce personal risk.

A reliable medical and social/behavioral history is a critical part of assessing risk for HIV infection. Discussing risk factors, especially those involving sexual behavior and drug use requires skill and sensitivity. Clinicians should discuss the details of risk behaviors in a forthright, relaxed and nonjudgmental manner while being aware of the patient's feelings and level of understanding. For some patients, use of "street language" may be more appropriate than technical terms. Whenever possible, clinicians should use open-ended questions.

A. GUIDELINES FOR COUNSELING PRIOR TO TESTING

1. Clarify the reasons the patient is requesting testing or reasons testing is recommended. Assess patient's understanding of testing and ability to cope with test results.

- Determine reasons why testing is requested. If the test is not requested by the patient but is recommended by the clinician, emphasize that counseling and testing are becoming routine parts of care in a variety of medical settings.
- Conduct sexual and drug use histories by sensitively asking open-ended nonjudgmental questions (Table 3).
- Assess the patient's understanding of HIV infection and AIDS. Clarify misperceptions. Point out that a negative test result may not necessarily indicate a patient is not infected if the patient has not yet developed antibody ("the window period").
- Determine the potential impact of test results on the patient's lifestyle, risk behaviors, and psychological state. If the patient displays anxiety or is assessed to be at high risk for HIV infection, determine if the patient has adequate social support and coping skills. Assess how the patient plans to handle the waiting time until test results are received. Provide the AIDSline phone numbers (800-334-AIDS; in Milwaukee: 273-AIDS) for access to information and support during the waiting period.

2. Counsel the patient regarding risk reduction measures.

- The patient should behave as if positive until valid negative test results have been obtained. Counsel the patient to use "safer sex" methods such as abstinence, maintaining a mutually monogamous relationship with an uninfected partner, limiting the number of sexual partners, and consistently using latex condoms.
- The patient should abstain from illicit drugs and not share needles or drug paraphernalia. If appropriate, encourage enrollment in a drug treatment program. If indicated, counsel the patient to use only sterile needles and syringes.
- Point out recreational or illicit drug use [ie, alcohol, marijuana, inhalable nitrates (poppers), cocaine, crack cocaine, etc.] increases the user's risk of HIV exposure by broadening the user's range of sexual behaviors, altering judgement, and decreasing inhibitions, and may also be immunosupressive.
- The patient should not donate blood, plasma, tissue or semen during the waiting period.
- Discuss perinatal transmission and refer for family planning assistance, as appropriate. Point out the difference between contraception and disease prevention methods.
- Inform the patient that positive test results will be reported to the Wisconsin Division of Public Health (DPH) and assistance will be available to inform sexual and needle-sharing partners of the need to be tested.
- Discuss the importance of early intervention and treatment in the course of HIV disease.

3. Provide written information to reinforce patient education and counseling.

See resource list at end of article.

4. Obtain written informed consent prior to obtaining the blood specimen.

Review with the patient the consent form and the list of persons having access to test results under Wisconsin statute 252.15(5).

5. Provide additional information and referrals for needed services (drug treatment, emotional support, etc.) as indicated.

B. GUIDELINES FOR COUNSELING PATIENTS WITH NEGATIVE TEST RESULTS

1. Give antibody test results and provide the patient time to express feelings and concerns. Recommend additional testing if person has had unsafe sex or shared needles within the last six months.

Inform the patient that despite the negative result, infection is still possible if the patient has had unsafe sex or shared needles in the past six months. Consider additional follow-up appointments as indicated. Counsel the patient to practice safer sex, clean needle use, and to decline from blood/plasma and tissue donation, as indicated.

2. Review risk reduction measures for preventing transmission of HIV.

Reinforce and review risk reduction/risk elimination guidelines for preventing HIV transmission. Remind the patient that a negative test result does not mean the patient is immune to infection. Reinforce the following risk reduction measures:

- Use "safer sex" methods such as abstinence, maintain a mutually monogamous relationship with an uninfected partner, limit the number of sexual partners, and consistently use latex condoms.
- Abstain from illicit drugs and do not share needles, seriously consider enrollment in a drug treatment program, and use sterile needles if continuing to inject drugs.
- Point out "recreational" drug use [ie, alcohol, marijuana, inhalable nitrates (poppers), etc.] increases the user's risk of HIV exposure by broadening the user's range of sexual behaviors, altering judgement, and decreasing inhibitions. Recreational drugs may also be immunosuppressive.
- Seek family planning assistance, as appropriate.

3. Provide information and/or referral for community resources (drug treatment, family planning/reproductive counseling, behavior change, etc.).

C. GUIDELINES FOR COUNSELING PATIENTS WITH POSITIVE TEST RESULTS

1. Give antibody test results and provide the patient time to express feelings and concerns.

2. Assess the patient for mental stress and recommend counseling or other professional support services.

Assess if the patient is emotionally and cognitively ready to understand the following points outlined below.

3. Clarify and reinforce the meaning of the test result.

Clarify that a positive confirmatory test indicates infection with HIV, which means the patient is infectious and capable of transmitting the virus to others.

4. Review guidelines and risk reduction measures for preventing the transmission of HIV.

In addition to basic information about HIV transmission, review the following guidelines for eliminating or reducing the risk of transmission to others and assess the need for reinforcement and additional counseling:

- Even if both partners are HIV-infected, they should practice "safer sex." There are many strains of HIV, some of which are thought to be more pathogenic than others. If one partner is infected with a more pathogenic strain, it is important to avoid transmitting it to the other partner.
- STDs (eg, herpes simplex, gonorrhea, genital warts, syphilis) may be present or may be reactivated in an HIV-infected person. "Safer sex" can reduce the risk of transmission of these STDs.
- HIV infects and activates CD4 cells. Repetitive activation of these cells by other infections theoretically could hasten the progression of HIV disease.
- Patients should decrease or eliminate use of alcohol, drugs, or "poppers" (inhalant nitrates), particularly during sexual activity. Use of these substances can impair judgement, increasing the likelihood that patients will practice unsafe behaviors. Use may also be immunosuppressive.
- Patients should not donate blood/plasma or human tissue.

5. Explain the importance of early medical care and ongoing medical monitoring.

Encourage early intervention—point out effective therapies are available to assist patients in maintaining their immune systems and enhancing the quality of life. Acquaint the patient with signs and symptoms of HIV-related illness and encourage and/or schedule further medical evaluations, to include a baseline physical examination, viral load test, CD4 cell count and other blood tests as appropriate, additional STD testing, PPD skin test to check for TB infection, and an evaluation for HIV-specific therapy and prophylaxis.

Offer assistance to the patient in making an appointment for initial medical evaluation.

6. Discuss the importance of maintaining positive personal health behaviors such as nutrition, rest and exercise.

Review basic principles of good health such as diet, stress reduction, sleep and exercise.

7. Discuss perinatal HIV transmission and referral sources, if indicated, for follow-up care.

For individuals who are pregnant or who may become pregnant in the future, review the concepts of vertical transmission:

- HIV may be transmitted from infected women to their fetus/infant by three possible routes: to the fetus in utero through maternal circulation and placenta, to the infant during labor and delivery by contact with or ingestion of infective fluids or blood, to the nursing infant through breast milk (HIV-positive mothers in the United States are recommended not to breast feed).
- Because maternal antibodies of the IgG class, including HIV antibodies, are transferred across the placenta to the infant, it is difficult at birth to determine whether an infant is infected. Maternal antibodies may persist in the infant for approximately 12 to 18 months. Other tests are available to detect HIV infection in infants.

It is estimated that 17 percent to 25 percent of infants born to untreated HIV-infected mothers will be actively infected.[4]

- Antiretroviral therapy for infected pregnant woman and their infants is highly effective in reducing the transmission of HIV to the newborn of an infected pregnant woman.

If this is the patient's first HIV test, the patient should be encouraged to have children undergo HIV antibody testing and medical evaluation if they were born after the patient was likely to have been infected.

8. Discuss future plans to notify sexual and needle-sharing partners.

- Partners should be urged to undergo testing. In the near future, assess the patient's plan for notifying sexual and needle-sharing partners. This may be unrealistic to discuss when the patient is initially informed of his/her HIV infection. Assess whom the patient will contact, what will be said, and how the patient plans to handle their reactions.

Inform the patient about the Wisconsin Partner Referral Program (PRP) and recommend that the patient agree to meet or talk with one of the staff who will be contacting him/her about options for talking with partners, either directly or anonymously through a PRP staff member. Point out the PRP is designed to protect the anonymity of patients. Their names are never revealed to sexual or needle-sharing partners. The partner is simply told she/he has been exposed to a person with HIV infection, is provided information about HIV, and is referred for counseling and testing. The date of exposure, sex of a partner, or any other potentially identifying information is not revealed. The PRP staff can provide guidance to a patient who indicates interest in self-referring partners. PRP services are voluntary, confidential and free. Staff in the Wisconsin Partner Referral Program can be contacted in southeastern Wisconsin at 414-226–8512; elsewhere in Wisconsin at 608-267-5288.

9. Discuss the patient's immediate plans and evaluate need for immediate psychosocial support or intervention. Discuss community resources.

At the conclusion of the session during which the patient is informed of his/her infection, discuss with the patient his/her feelings, what he/she will do the next few hours and days, and who he/she will call if help is needed. Assess whether the patient should be referred immediately to a mental health professional or an AIDS service organization for additional emotional support. AIDS service organizations provide a variety of case management and supportive services. Offer assistance in making a referral or appointment. Information on Wisconsin AIDS service organizations can be obtained from the Wisconsin AIDSline at 800-334-AIDS; in Milwaukee: 273-AIDS.

10. Provide the opportunity for the patient to schedule another appointment to further discuss points covered during follow-up counseling.

Because the patient may not retain much of the information during the visit, schedule a follow-up counseling session or offer the patient an opportunity for a follow-up visit.

11. Submit report of positive test results to the Wisconsin AIDS/HIV Program.

As required by Wisconsin statute, complete the Wisconsin HIV Infection Confidential Case Report Form (DOH 4338) and mail it in an envelope marked "CONFIDENTIAL" to the address on the case report form. For additional information on case reporting, contact staff at the Wisconsin AIDS/HIV Program at 608–267-5287.

COUNSELING AND TESTING OF PREGNANT WOMEN

Because HIV infection is a growing cause of morbidity and mortality among women and children, routine counseling and voluntary HIV testing of all pregnant women is a recommended standard of

WISCONSIN AIDS SERVICE ORGANIZATION OFFICES

Northern Region		
AIDS Resource Center of Wisconsin	Oneida County Health Department PO Box 400 Courthouse Rhinelander WI 54501	715-369-6228 800-374-7678 715-369-6112 (FAX)
AIDS Resource Center of Wisconsin	1105 Grand Ave Suite 3 Schofield WI 54476	715-355-6867 715-355-7684(FAX)
Northeastern Region		
AIDS Resource Center of Wisconsin	824 S Broadway Green Bay WI 54304	920437-7400 800-675-9400 920-437-1040 (FAX)
AIDS Resource Center of Wisconsin	120 N Morrison St Suite 201 Appleton WI 54911	920-733-2068 800-773-2068 920-733-7786 (FAX)
Western Region		
AIDS Resource Center of Wisconsin	505 Dewey St South Suite 107 Eau Claire WI 54701	715-836-7710 800-750-2437 715-836-9844 (FAX)
AIDS Resource Center of Wisconsin	Grandview Center 1707 Main St Suite 420 La Crosse WI 54601	608-785-9866 608-784-6661 (FAX)
AIDS Resource Center of Wisconsin	Board of Trade Building 1507 Tower Ave Suite 230 Superior WI 54880	715-394-4009 877-242-0282 (toll-free) 715-394-4066 (FAX)
Southern Region		
AIDS Network	600 Williamson St. Madison WI 53703	608-252-6540 800-486-6276 608-252-6559 (FAX)
	32 South Main Street Janesville, WI 53545	608-756-2550 800-486-6276 608-756-2545 (FAX)
	159 West Grand Ave Beloit, WI 53511	608-363-8674 800-486-6276
Southeastern Region		
AIDS Resource Center of Wisconsin	820 N Plankinton Ave. Milwaukee WI 53203	414-273-1991 800-359-9272 414-273-2357 (FAX)
AIDS Resource Center of Wisconsin	1212 57th St. Kenosha WI 53140	414-657-6644 800-924-6601 414-657-6949 (FAX)

RESOURCES ON HIV COUNSELING AND TESTING

Resources on HIV Counseling and Testing

American Medical Association. A physician's guide to HIV prevention. Chicago (IL): American Medical Association.

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Internet-based Resources

American Medical Association. HIVIAIDS Information Center at the Journal of the American Medical Association. (A website maintain by JAMA with a variety of HIV-related resources, located at http://www.ama-assn.org/special/hiv/treatmnt/guide/guidprev.htm)

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Food and Drug Administration. FDA backgrounder: home-use HIV test kits (monograph online). Available from: URL: http://www. fda.gov.)

Food and Drug Administration. Center for Biologics Evaluation and Research. Testing yourself for HIV-1, the virus that causes AIDS—home test systems are available. (monograph online). Available from: URL: http://www.fda.gov/cber/infosheets/hiv-home.htm.)

Volberding PA. How to tell patients they have HIV disease. In: Cohen PT, Sande MA, Volberding PA editors. The AIDS knowledge base. 3rd ed. (text online). Available from: URL: http://hivinsite.ucsf.edu/akb/1997/02abtest/index.htm)

Toll-free Telephone Numbers for Consumers Seeking Information on HIV-related Issues

National HIV/AIDS Hotline (CDC): English: 800-342-2437; Spanish: 800-344-7432

Wisconsin AIDSline: 800-334-AIDS (In Milwaukee: 414-273-AIDS)

clinical practice. Heterosexual women comprise the most rapidly increasing group of persons infected with HIV in the United States. As more women are infected with HIV, more infants are subsequently at risk of acquiring the disease. The risk of transmission of HIV from an infected woman to her fetus ranges from 17 percent to 25 percent.[4]

In 1994, the National Institutes of Health AIDS Clinical Trial 076 demonstrated that AZT (zidovudine) could reduce perinatal HIV transmission from some infected women to their infants by as much as two–thirds. In response, the CDC released recommendations highlighting the importance of HIV counseling and encouraging voluntary testing for all pregnant women.[5]

The Wisconsin HIV Primary Care Support Network at Children's Hospital of Wisconsin and the Medical College of Wisconsin provides consultation and technical assistance to health care professionals regarding management of HIV infection in infants, children, adolescents and women. The Primary Care Support Network can be contacted at 414-266-2672.

TESTING OF INFANTS AND YOUNG CHILDREN

Infants born to women with HIV infection passively acquire maternal antibody to HIV, which can result in an EIA test for antibody to HIV being positive for up to 18 months after birth, even in infants who are not infected with HIV.

Polymerase chain reaction for HIV DNA (HIV DNA PCR) is used to identify HIV infection in children less than 18 months of age. Infants infected with HIV in utero may have positive HIV DNA PCR shortly after birth. Such infants are at high risk of rapidly progressive symptomatic HIV infection. Infants infected in the peripartum period have positive HIV DNA PCR only after two to four weeks of age. HIV DNA PCR should be performed in the first week of life and again at one and four months. If all three of these HIV DNA PCR tests are negative, the chance that the infant is infected is less than 5 percent.[4]

Because uninfected infants lose passively acquired maternal antibody during the first 18 months of life (seroreversion), testing for antibody to HIV should be performed by EIA at 18 months of age for all infants at risk for HIV infection. At 18 months, if the EIA for HIV is negative in the absence of clinical symptoms of HIV infection or prior HIV DNA PCR or culture positivity, the patient is not infected with HIV. The state epidemiologist should be sent another HIV report form denoting the reclassification.

POST-EXPOSURE PROPHYLAXIS

On May 15, 1998 the CDC published updated Public Health Service guidelines concerning post-exposure prophylaxis (PEP) of occupational exposure to HIV.[6] These recommendations define types of exposures and source materials, options for antiretroviral prophylaxis, and recommended antiretroviral regimens. For complete information about these recommendations, see "Update: provisional public health service recommendations for chemoprophylaxis after occupational exposure to HIV," in the Morbidity and Mortality Weekly Report, 1996; 45:468-72. Copies of this document are available from the CDC National Prevention Information Network at 800-458-5231 and through the Internet at <http://aepo-xdv-www.epo.cdc.gov/wonder/prevguid/m0042200/entire.htm>.

The University of California, San Francisco (UCSF) Department of Medicine at San Francisco General Hospital (SFGH) sponsors PEPLine, the National Clinicians' Post-exposure Prophylaxis Hotline providing telephone consultation 24 hours a day, seven days a week to clinicians treating health care workers occupationally exposed to HIV. Clinicians can contact PEPLine at 888-HIV-4911.

Guidelines for PEP of nonoccupational exposure (sexual contact or injection drug use) to HIV have not been finalized. On September 25, 1998, the CDC released the Public Health Service statement "Management of Possible Sexual, Injecting Drug Use, or Other Nonoccupational Exposure to HIV, Including Considerations Related to Antiretroviral Therapy" (*MMWR Morb Mortal Wkly Rep* 1998;47(RR-17). The CDC acknowledges the lack of efficacy data on the use of antiretroviral agents to reduce HIV transmission after a possible nonoccupational exposure and therefore does not recommend for or against this therapeutic approach. The CDC statement examines the possible benefits and risks associated with the use of antiretroviral agents following potential nonoccupational exposures to HIV, including considerations in initiating therapy. Copies of the CDC statement can be obtained from the Internet at http://www.cdc.gov/nchstp/hiv_aids/pubs/mmwr/mmwr1998.htm or by calling the CDC National Prevention Information Network at 1-800-458-5231.

To collect information about the safety and outcome of taking antiretroviral drugs for postexposure prophylaxis, CDC, Glaxo Wellcome Inc., and Merck & Co. have established the HIV Postexposure Prophylaxis Registry. To learn more about the Registry or to enroll in the Registry, call toll free 888–PEP-4HIV (888-737-4448).

WISCONSIN AIDS SERVICE ORGANIZATIONS

Wisconsin AIDS service organizations provide important resources for persons with HIV infection in Wisconsin. Located regionally throughout the state, AIDS service organizations provide case management, advocacy, early intervention and medical referral, legal counseling, psychosocial support, financial counseling, referral for pastoral care, and assistance with daily living needs. Refer to "Wisconsin AIDS Service Organization Offices" (p. 56) for addresses and telephone numbers of local AIDS service organizations in the state.

FOR ADDITIONAL INFORMATION

For further information regarding HIV counseling and testing in primary care, call the Wisconsin AIDS/HIV Program at 608-267-5287.

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Minimizing an Employer's Risk of Liability for Sexual Harassment

by Melanie Cohen, JD, SMS Assistant General Counsel

Do you have a sexual harassment policy? If you don't, it would be prudent to develop one; and if you do, now is a good time to review and update it. In two recent decisions, *Burlington Industries, Inc. v. Ellerth* and *Faragher v. City of Boca Raton,* the United States Supreme Court addressed an employer's liability for sexual harassment by supervisors. In those decisions, the Court made clear that written and enforced sexual harassment policies may protect employers from liability for sexual harassment in certain circumstances.

What is sexual harassment?

Sexual harassment is a form of sex-based discrimination that is prohibited by Title VII of the Civil Rights Act of 1964 (Title VII).[1] In general, Title VII applies to employers with 15 or more employees. While Title VII does not explicitly prohibit sexual harassment, the Supreme Court has interpreted Title VII's prohibition on sex-based discrimination as prohibiting sexual harassment.

Not all sexual conduct in the workplace rises to the level of sexual harassment actionable under Title VII. The Equal Employment Opportunity Commission, which enforces Title VII, has adopted this definition of sexual harassment:

> Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitutes sexual harassment when submission to or rejection of this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance, or creates an intimidating, hostile or offensive work environment.

Employer Liability for Sexual Harassment

Employers have a duty to keep the workplace free from harassment, and can be held liable if sexual harassment occurs. When sexual harassment results in a "tangible employment action" by a supervisor, an employer will be strictly liable for the harassment regardless of whether the employer knew or should have known of the harassment. A tangible employment action that may result in strict liability is an action that "constitutes a significant change in employment status, such as hiring, firing, failing to promote, reassignment with significantly different responsibilities, or a decision causing a significant change in benefits."

An employer also may be vicariously liable for sexual harassment created by a supervisor even when no tangible employment action results. In that case, however, the employer will not be strictly liable, but will have an opportunity to defend itself against the charges. The employer may defend against such a claim by establishing (a) that it "exercised reasonable care to prevent and correct promptly any sexual harassing behavior," and (b) that "the plaintiff-employee unreasonably failed to take advantage of any preventive or corrective opportunities provided by the employer or to avoid harm otherwise." While an employer's liability in each case will depend on the particular facts at hand, an employer may show that it satisfied its obligation to prevent and correct any sexually harassing behavior by establishing that it has adopted an anti-harassment policy. It may satisfy the second element of the defense by showing that the employee "unreasonably" failed to take advantage of the complaint procedures provided in the policy. An employer may only raise this defense, however, if the sexual harassment did not result in a tangible employment action.

Damages Available Under Title VII

Under Title VII, an employee who is subject to sexual harassment may recover compensatory and punitive damages, as well as equitable relief in the form of backpay, front pay, or reinstatement. The court may also award a prevailing employee the costs of prosecuting the lawsuit, including attorneys' fees.

Steps for Minimizing Liability for Sexual Harassment

In light of the recent Supreme Court decisions, there are a number of steps an employer can take to minimize its risk of liability for sexual harassment.

- **Develop a strong sexual harassment policy, or review and update your current policy.** The policy should include, at a minimum:
  1. a clear statement that sexual harassment will not be tolerated,
  2. a definition of sexual harassment that includes specific examples of prohibited conduct,
  3. specific procedures and guidelines for reporting perceived harassment that do not require the employee to report to an offending supervisor,
  4. a statement regarding corrective action and discipline to be taken against anyone who violates the policy,
  5. a prohibition against any acts of retaliation for filing a complaint, reporting perceived harassment, or cooperating with a sexual harassment investigation.
- **Distribute the policy to your employees.** Your policy will not do you any good if your employees do not know about it. Make sure all of your employees receive a copy of the sexual harassment policy. Distribute it to all employees, include it in the employee handbook, and post it in a place where employees are likely to see it, for example, on a bulletin board in the lunch room.
- **Educate your employees.** Provide a training session to discuss sexual harassment and your company's sexual harassment policy. Supervisors and managers should receive additional training in ways to keep the workplace free from harassment and appropriate ways to respond to complaints and reports of sexual harassment or perceived sexual harassment.
- **Do not ignore sexual harassment.** When you receive a complaint of sexual harassment or learn that sexual harassment may be occurring, promptly and thoroughly investigate the situation and take swift and appropriate corrective action consistent with your sexual harassment policy. All cases should be handled consistently.
- Do not retaliate against an employee who complains of or reports sexual harassment.

Employers may wish to contact legal counsel for assistance in establishing sexual harassment policies, grievance procedures or educational programs.

Conclusion

Sexual harassment should not be tolerated in the workplace, and that alone is reason enough to adopt and enforce a strong policy prohibiting sexual harassment. The recent Supreme Court decisions, however, provide employers with another motivation – to protect themselves from liability in certain sexual harassment cases involving supervisors. While the existence of a strong sexual harassment policy will not necessarily protect an employer from liability, it is an important step that an employer can and should take.

References

1. Sexual harassment is also prohibited by the Wisconsin Fair Employment Act and is considered unethical conduct by the AMA. This article, however, only addresses sexual harassment under Title VII.

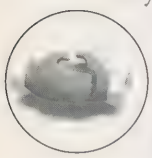
Your Financial Fitness

Life Insurance Riders

by Michael J. Dolan, CLU, ChFC, President, SMS Insurance Services, Inc.

Your life insurance policy may include a number of special features, often in the form of "riders" or "endorsements" to the basic policy. Many of these features are very useful. Here are some you should know about:

- Waiver of premium provisions are built into some policies and are available as separate riders on others. There are slight variations from company to company, but most waiver of premium clauses provide that your policy will be kept in force, with no additional premiums necessary, if you become totally disabled before an age specified in the policy or rider.



Check your particular policy to see what age applies and how long you must wait before the waiver takes effect. You should also find out how the insurer defines total disability and how long the waiver continues; some continue for life but others may end if you recover.
- Disability income riders provide monthly benefits should you become totally disabled. Again, you need to determine how the benefits are set (they may be a percentage of the face amount of the policy), how total disability is defined, how long a waiting period applies, and how long benefits will last. And, while disability income insurance is important, it may be preferable to carry this insurance in a policy designed for that purpose.
- Accelerated benefits features are built into many new policies, and are available by rider on many older policies. The benefits are also available on some group life insurance polices. Under a law passed in 1996, the proceeds are tax-free. Bear in mind, though, that using benefits before you die will reduce any proceeds otherwise payable to your survivors.
- Guaranteed insurability riders guarantee the right to buy additional insurance, without regard to the state of your health, up to a specific age. These riders are usually found on cash value life insurance policies and rarely on term insurance. Ask your insurance agent how often purchases may be made, how much additional insurance you can buy (there may be both minimum and maximum amounts), up to what age you may make purchases, and what the additional coverage will cost.
- Accidental death benefits, sometimes called "double indemnity," pay double or even triple benefits if you should die in an accident. Since your family will need just as much money to replace your income whether you die in an accident or in bed, it's generally better to buy the full amount of life insurance your family will need.

Michael Dolan is president and chief operating officer of SMS Insurance Services and a member of the National Association of Life Underwriters. He can be reached at SMS, ext. 550, or via e-mail at: MICHAELD@smswi.org.

Index to Articles: 1998

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  Results—Provide results in the test, tables or illustrations. If tables or illustrations are used, emphasize or summarize only the most important observations in the text.
  Discussion—Discuss the conclusions that follow from the results, as well as their limitations and relations to other studies. Show how the conclusions relate to the purpose of the study. Recommendations, when appropriate, may be included.
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The Editorial Board will be pleased to consider publication of brief conference reports. The following ground rules will apply:

1. Only reports of single-topic conferences held in Wisconsin will be considered.
2. The topic of the conference should have interest for a wide group of Wisconsin physicians who would have liked to attend, but the priority was not high enough, e.g., Alzheimer's Disease, AIDS.
3. The author should be the conference chair (or designee).
4. The report should focus primarily on what is "new and important" that can and should be used by the reader.
5. BRIEF is defined as six pages, double-spaced typing. In addition, the author may provide a one-page, double-spaced background statement as to why the content of the report is important for Wisconsin physicians.
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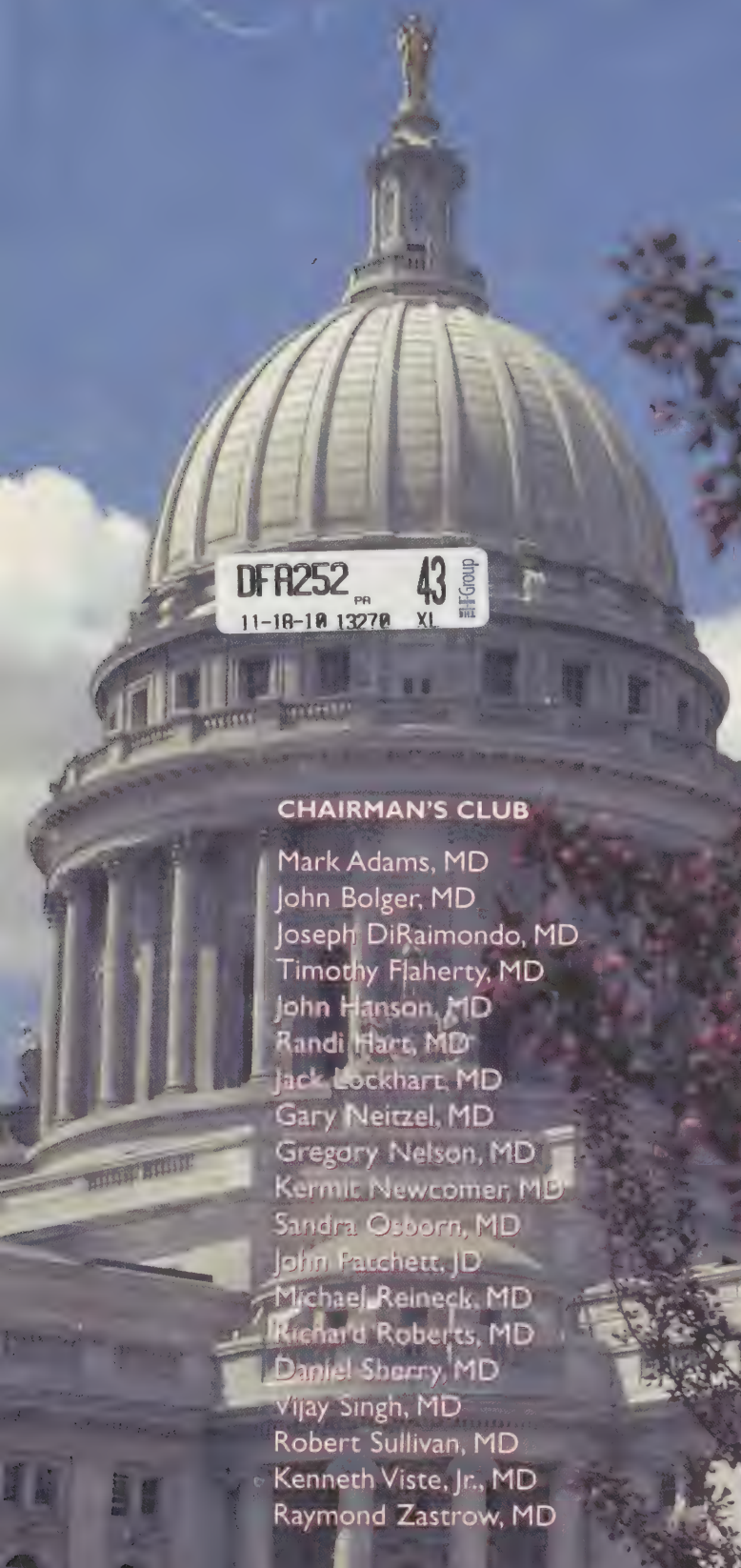

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